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THE AMERICAN PSYCHOLOGIST

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CARL R. ROGERS

Professor of Psychology, University of Chicago
President of the American Psychological Association, 1947

SOME OBSERVATIONS ON THE ORGANIZATION OF PERSONALITY¹

CARL R. ROGERS

University of Chicago

IN VARIOUS fields of science rapid strides have been made when direct observation of significant processes has become possible. In medicine, when circumstances have permitted the physician to peer directly into the stomach of his patient, understanding of digestive processes has increased and the influence of emotional tension upon all aspects of that process has been more accurately observed and understood. In our work with nondirective therapy we often feel that we are having a psychological opportunity comparable to this medical experience—an opportunity to observe directly a number of the effective processes of personality. Quite aside from any question regarding nondirective therapy as therapy, here is a precious vein of observational material of unusual value for the study of personality.

CHARACTERISTICS OF THE OBSERVATIONAL MATERIAL

There are several ways in which the raw clinical data to which we have had access is unique in its value for understanding personality. The fact that these verbal expressions of inner dynamics are preserved by electrical recording makes possible a detailed analysis of a sort not heretofore possible. Recording has given us a microscope by which we may examine at leisure, and in minute detail, almost every aspect of what was, in its occurrence, a fleeting moment impossible of accurate observation.

Another scientifically fortunate characteristic of this material is the fact that the verbal productions of the client are biased to a minimal degree by the therapist. Material from client-centered interviews probably comes closer to being a "pure" expression of attitudes than has yet been achieved

¹ Address of the retiring President of the American Psychological Association delivered at the September 1947 Annual Meeting.

through other means. One can read through a complete recorded case or listen to it, without finding more than a half-dozen instances in which the therapist's views on any point are evident. One would find it impossible to form an estimate as to the therapist's views about personality dynamics. One could not determine his diagnostic views, his standards of behavior, his social class. The one value or standard held by the therapist which would exhibit itself in his tone of voice, responses, and activity, is a deep respect for the personality and attitudes of the client as a separate person. It is difficult to see how this would bias the content of the interview, except to permit deeper expression than the client would ordinarily allow himself. This almost complete lack of any distorting attitude is felt, and sometimes expressed by the client. One woman says:

"It's almost impersonal. I like you—of course I don't know why I should like you or why I shouldn't like you. It's a peculiar thing. I've never had that relationship with anybody before and I've often thought about it. A lot of times I walk out with a feeling of elation that you think highly of me, and of course at the same time I have the feeling that 'Gee, he must think I'm an awful jerk' or something like that. But it doesn't really—those feelings aren't so deep that I can form an opinion one way or the other about you."

Here it would seem that even though she would like to discover some type of evaluational attitude, she is unable to do so. Published studies and research as yet unpublished bear out this point that counselor responses which are in any way evaluational or distorting as to content are at a minimum, thus enhancing the worth of such interviews for personality study.

The counselor attitude of warmth and understanding, well described by Snyder (9) and Rogers (8), also helps to maximize the freedom of expression by the individual. The client experiences

sufficient interest in him as a person, and sufficient acceptance, to enable him to talk openly, not only about surface attitudes, but increasingly about intimate attitudes and feelings hidden even from himself. Hence in these recorded interviews we have material of very considerable depth so far as personality dynamics is concerned, along with a freedom from distortion.

Finally the very nature of the interviews and the techniques by which they are handled give us a rare opportunity to see to some extent through the eyes of another person—to perceive the world as it appears to him, to achieve at least partially, the internal frame of reference of another person. We see his behavior through his eyes, and also the psychological meaning which it had for him. We see also changes in personality and behavior, and the meanings which those changes have for the individual. We are admitted freely into the backstage of the person's living where we can observe from within some of the dramas of internal change, which are often far more compelling and moving than the drama which is presented on the stage viewed by the public. Only a novelist or a poet could do justice to the deep struggles which we are permitted to observe from within the client's own world of reality.

This rare opportunity to observe so directly and so clearly the inner dynamics of personality is a learning experience of the deepest sort for the clinician. Most of clinical psychology and psychiatry involves judgements *about* the individual, judgements which must, of necessity, be based on some framework brought to the situation by the clinician. To try continually to see and think *with* the individual, as in client-centered therapy, is a mindstretching experience in which learning goes on apace because the clinician brings to the interview no pre-determined yardstick by which to judge the material.

I wish in this paper to try to bring you some of the clinical observations which we have made as we have repeatedly peered through these psychological windows into personality, and to raise with you some of the questions about the organization of personality which these observations have forced upon us. I shall not attempt to present these observations in logical order, but rather in the order in which they impressed themselves upon

our notice. What I shall offer is not a series of research findings, but only the first step in that process of gradual approximation which we call science, a description of some observed phenomena which appear to be significant, and some highly tentative explanations of these phenomena.

THE RELATION OF THE ORGANIZED PERCEPTUAL FIELD TO BEHAVIOR

One simple observation, which is repeated over and over again in each successful therapeutic case, seems to have rather deep theoretical implications. It is that as changes occur in the perception of self and in the perception of reality, changes occur in behavior. In therapy, these perceptual changes are more often concerned with the self than with the external world. Hence we find in therapy that as the perception of self alters, behavior alters. Perhaps an illustration will indicate the type of observation upon which this statement is based.

A young woman, a graduate student whom we shall call Miss Vib, came in for nine interviews. If we compare the first interview with the last, striking changes are evident. Perhaps some features of this change may be conveyed by taking from the first and last interviews all the major statements regarding self, and all the major statements regarding current behavior. In the first interview, for example, her perception of herself may be crudely indicated by taking all her own statements about herself, grouping those which seem similar, but otherwise doing a minimum of editing, and retaining so far as possible, her own words. We then come out with this as the conscious perception of self which was hers at the outset of counseling.

"I feel disorganized, muddled; I've lost all direction; my personal life has disintegrated.

"I sorta experience things from the forefront of my consciousness, but nothing sinks in very deep; things don't seem real to me; I feel nothing matters; I don't have any emotional response to situations; I'm worried about myself.

"I haven't been acting like myself; it doesn't seem like me; I'm a different person altogether from what I used to be in the past.

"I don't understand myself; I haven't known what was happening to me.

"I have withdrawn from everything, and feel all right only when I'm all alone and no one can expect me to do things.

"I don't care about my personal appearance.

"I don't know *anything* anymore."

"I feel guilty about the things I have left undone."

"I don't think I could ever assume responsibility for anything."

If we attempt to evaluate this picture of self from an external frame of reference various diagnostic labels may come to mind. Trying to perceive it solely from the client's frame of reference we observe that to the young woman herself she appears disorganized, and not herself. She is perplexed and almost unacquainted with what is going on in herself. She feels unable and unwilling to function in any responsible or social way. This is at least a sampling of the way she experiences or perceives her self.

Her behavior is entirely consistent with this picture of self. If we abstract all her statements describing her behavior, in the same fashion as we abstracted her statements about self, the following pattern emerges—a pattern which in this case was corroborated by outside observation.

"I couldn't get up nerve to come in before; I haven't availed myself of help."

"Everything I should do or want to do, I don't do."

"I haven't kept in touch with friends; I avoid making the effort to go with them; I stopped writing letters home; I don't answer letters or telephone calls; I avoid contacts that would be professionally helpful; I didn't go home though I said I would."

"I failed to hand in my work in a course though I had it all done; I didn't even buy clothing that I needed; I haven't even kept my nails manicured."

"I didn't listen to material we were studying; I waste hours reading the funny papers; I can spend the whole afternoon doing absolutely nothing."

The picture of behavior is very much in keeping with the picture of self, and is summed up in the statement that "Everything I should do or want to do, I don't do." The behavior goes on, in ways that seem to the individual beyond understanding and beyond control.

If we contrast this picture of self and behavior with the picture as it exists in the ninth interview, thirty-eight days later, we find both the perception of self and the ways of behaving deeply altered. Her statements about self are as follows:

"I'm feeling much better; I'm taking more interest in myself."

"I do have some individuality, some interests."

"I seem to be getting a newer understanding of myself."

I can look at myself a little better.

"I realize I'm just one person, with so much ability, but I'm not worried about it; I can accept the fact that I'm not always right."

"I feel more motivation, have more of a desire to go ahead."

"I still occasionally regret the past, though I feel less unhappy about it; I still have a long ways to go; I don't know whether I can keep the picture of myself I'm beginning to evolve."

"I can go on learning—in school or out."

"I do feel more like a normal person now; I feel more I can handle my life myself; I think I'm at the point where I can go along on my own."

Outstanding in this perception of herself are three things—that she knows herself, that she can view with comfort her assets and liabilities, and finally that she has drive and control of that drive.

In this ninth interview the behavioral picture is again consistent with the perception of self. It may be abstracted in these terms.

"I've been making plans about school and about a job; I've been working hard on a term paper; I've been going to the library to trace down a topic of special interest and finding it exciting."

"I've cleaned out my closets; washed my clothes."

"I finally wrote my parents; I'm going home for the holidays."

"I'm getting out and mixing with people; I am reacting sensibly to a fellow who is interested in me—seeing both his good and bad points."

"I will work toward my degree; I'll start looking for a job this week."

Her behavior, in contrast to the first interview, is now organized, forward-moving, effective, realistic and planful. It is in accord with the realistic and organized view she has achieved of her self.

It is this type of observation, in case after case, that leads us to say with some assurance that as perceptions of self and reality change, behavior changes. Likewise, in cases we might term failures, there appears to be no appreciable change in perceptual organization or in behavior.

What type of explanation might account for these concomitant changes in the perceptual field and the behavioral pattern? Let us examine some of the logical possibilities.

In the first place, it is possible that factors unrelated to therapy may have brought about the altered perception and behavior. There may have been physiological processes occurring which pro-

duced the change. There may have been alterations in the family relationships, or in the social forces, or in the educational picture or in some other area of cultural influence, which might account for the rather drastic shift in the concept of self and in the behavior.

There are difficulties in this type of explanation. Not only were there no known gross changes in the physical or cultural situation as far as Miss Vib was concerned, but the explanation gradually becomes inadequate when one tries to apply it to the many cases in which such change occurs. To postulate that some external factor brings the change and that only by chance does this period of change coincide with the period of therapy, becomes an untenable hypothesis.

Let us then look at another explanation, namely that the therapist exerted, during the nine hours of contact, a peculiarly potent cultural influence which brought about the change. Here again we are faced with several problems. It seems that nine hours scattered over five and one-half weeks is a very minute portion of time in which to bring about alteration of patterns which have been building for thirty years. We would have to postulate an influence so potent as to be classed as traumatic. This theory is particularly difficult to maintain when we find, on examining the recorded interviews, that not once in the nine hours did the therapist express any evaluation, positive or negative, of the client's initial or final perception of self, or her initial or final mode of behavior. There was not only no evaluation, but no standards expressed by which evaluation might be inferred.

There was, on the part of the therapist, evidence of warm interest in the individual, and thorough-going acceptance of the self and of the behavior as they existed initially, in the intermediate stages, and at the conclusion of therapy. It appears reasonable to say that the therapist established certain definite conditions of interpersonal relations, but since the very essence of this relationship is respect for the person as he is at that moment, the therapist can hardly be regarded as a cultural force making for change.

We find ourselves forced to a third type of explanation, a type of explanation which is not new to psychology, but which has had only partial acceptance. Briefly it may be put that the observed

phenomena of change seem most adequately explained by the hypothesis that *given certain psychological conditions, the individual has the capacity to reorganize his field of perception, including the way he perceives himself, and that a concomitant or a resultant of this perceptual reorganization is an appropriate alteration of behavior.* This puts into formal and objective terminology a clinical hypothesis which experience forces upon the therapist using a client-centered approach. One is compelled through clinical observation to develop a high degree of respect for the ego-integrative forces residing within each individual. One comes to recognize that under proper conditions the self is a basic factor in the formation of personality and in the determination of behavior. Clinical experience would strongly suggest that the self is, to some extent, an architect of self, and the above hypothesis simply puts this observation into psychological terms.

In support of this hypothesis it is noted in some cases that one of the concomitants of success in therapy is the realization on the part of the client that the self has the capacity for reorganization. Thus a student says:

"You know I spoke of the fact that a person's background retards one. Like the fact that my family life wasn't good for me, and my mother certainly didn't give me any of the kind of bringing up that I should have had. Well, I've been thinking that over. It's true up to a point. But when you get so that you can see the situation, then it's really up to you."

Following this statement of the relation of the self to experience many changes occurred in this young man's behavior. In this, as in other cases, it appears that when the person comes to see himself as the perceiving, organizing agent, then reorganization of perception and consequent change in patterns of reaction take place.

On the other side of the picture we have frequently observed that when the individual has been authoritatively told that he is governed by certain factors or conditions beyond his control, it makes therapy more difficult, and it is only when the individual discovers for himself that he can organize his perceptions that change is possible. In veterans who have been given their own psychiatric diagnosis, the effect is often that of making the individual feel that he is under an unalterable doom, that he is unable to control the organization of his life. When

however the self sees itself as capable of reorganizing its own perceptual field, a marked change in basic confidence occurs. Miss Nam, a student, illustrates this phenomenon when she says, after having made progress in therapy:

"I think I do feel better about the future, too, because it's as if I won't be acting in darkness. It's sort of, well, knowing somewhat why I act the way I do... and at least it isn't the feeling that you're simply out of your own control and the fates are driving you to act that way. If you realize it, I think you can do something more about it."

A veteran at the conclusion of counseling puts it more briefly and more positively: "My attitude toward myself is changed now to where I feel I can do something with my self and life." He has come to view himself as the instrument by which some reorganization can take place.

There is another clinical observation which may be cited in support of the general hypothesis that there is a close relationship between behavior and the way in which reality is viewed by the individual. It has been noted in many cases that behavior changes come about for the most part imperceptibly and almost automatically, once the perceptual reorganization has taken place. A young wife who has been reacting violently to her maid, and has been quite disorganized in her behavior as a result of this antipathy, says "After I... discovered it was nothing more than that she resembled my mother, she didn't bother me any more. Isn't that interesting? She's still the same." Here is a clear statement indicating that though the basic perceptions have not changed, they have been differently organized, have acquired a new meaning, and that behavior changes then occur. Similar evidence is given by a client, a trained psychologist, who after completing a brief series of client-centered interviews, writes:

"Another interesting aspect of the situation was in connection with the changes in some of my attitudes. When the change occurred, it was as if earlier attitudes were wiped out as completely as if erased from a blackboard.... When a situation which would formerly have provoked a given type of response occurred, it was not as if I was tempted to act in the way I formerly had but in some way found it easier to control my behavior. Rather the new type of behavior came quite spontaneously, and it was only through a deliberate analysis that I became aware that I was acting in a new and different way."

Here again it is of interest that the imagery is put in terms of visual perception and that as attitudes are "erased from the blackboard" behavioral changes take place automatically and without conscious effort.

Thus we have observed that appropriate changes in behavior occur when the individual acquires a different view of his world of experience, including himself; that this changed perception does not need to be dependent upon a change in the "reality," but may be a product of internal reorganization; that in some instances the awareness of the capacity for reperceiving experience accompanies this process of reorganization; that the altered behavioral responses occur automatically and without conscious effort as soon as the perceptual reorganization has taken place, apparently as a result of this.

In view of these observations a second hypothesis may be stated, which is closely related to the first. It is that *behavior is not directly influenced or determined by organic or cultural factors, but primarily, (and perhaps only,) by the perception of these elements.* In other words the crucial element in the determination of behavior is the perceptual field of the individual. While this perceptual field is, to be sure, deeply influenced and largely shaped by cultural and physiological forces, it is nevertheless important that it appears to be only the field as it is *perceived*, which exercises a specific determining influence upon behavior. This is not a new idea in psychology, but its implications have not always been fully recognized.

It might mean, first of all, that if it is the perceptual field which determines behavior, then the primary object of study for psychologists would be the person and his world *as viewed by the person himself.* It could mean that the internal frame of reference of the person might well constitute the field of psychology, an idea set forth persuasively by Snygg and Combs in a significant manuscript as yet unpublished. It might mean that the laws which govern behavior would be discovered more deeply by turning our attention to the laws which govern perception.

Now if our speculations contain a measure of truth, if the *specific* determinant of behavior is the perceptual field, and if the self can reorganize that perceptual field, then what are the limits of this process? Is the reorganization of perception capri-

cious, or does it follow certain laws? Are there limits to the degree of reorganization? If so, what are they? In this connection we have observed with some care the perception of one portion of the field of experience, the portion we call the self.

THE RELATION OF THE PERCEPTION OF THE SELF TO ADJUSTMENT

Initially we were oriented by the background of both lay and psychological thinking to regard the outcome of successful therapy as the solution of problems. If a person had a marital problem, a vocational problem, a problem of educational adjustment, the obvious purpose of counseling or therapy was to solve that problem. But as we observe and study the recorded accounts of the conclusion of therapy, it is clear that the most characteristic outcome is not necessarily solution of problems, but a freedom from tension, a different feeling about, and perception of, self. Perhaps something of this outcome may be conveyed by some illustrations.

Several statements taken from the final interview with a twenty year old young woman, Miss Mir, give indications of the characteristic attitude toward self, and the sense of freedom which appears to accompany it.

"I've always tried to be what the others thought I should be, but now I am wondering whether I shouldn't just see that I am what I am."

"Well, I've just noticed such a difference. I find that when I feel things, even when I feel hate, I don't care. I don't mind. I feel more free somehow. I don't feel guilty about things."

"You know it's suddenly as though a big cloud has been lifted off. I feel so much more content."

Note in these statements the willingness to perceive herself as she is, to accept herself "realistically," to perceive and accept her "bad" attitudes as well as "good" ones. This realism seems to be accompanied by a sense of freedom and contentment.

Miss Vib, whose attitudes were quoted earlier, wrote out her own feelings about counseling some six weeks after the interviews were over, and gave the statement to her counselor. She begins:

"The happiest outcome of therapy has been a new feeling about myself. As I think of it, it might be the only outcome. Certainly it is basic to all the changes in my behavior that have resulted." In discussing her ex-

perience in therapy she states, "I was coming to see myself as a whole. I began to realize that I am *one* person. This was an important insight to me. I saw that the former good academic achievement, job success, ease in social situations, and the present withdrawal, dejection, apathy and failure were all adaptive behavior, performed by *me*. This meant that I had to reorganize my feelings about myself, no longer holding to the unrealistic notion that the very good adjustment was the expression of the real "me" and this neurotic behavior was not. I came to feel that I am the same person, sometimes functioning maturely, and sometimes assuming a neurotic role in the face of what I had conceived as insurmountable problems. The acceptance of myself as one person gave me strength in the process of reorganization. Now I had a substratum, a core of unity on which to work." As she continues her discussion there are such statements as "I am getting more happiness in being myself." "I approve of myself more, and I have so much less anxiety."

As in the previous example, the outstanding aspects appear to be the realization that all of her behavior "belonged" to her, that she could accept both the good and bad features about herself and that doing so gave her a release from anxiety and a feeling of solid happiness. In both instances there is only incidental reference to the serious "problems" which had been initially discussed.

Since Miss Mir is undoubtedly above average intelligence and Miss Vib is a person with some psychological training, it may appear that such results are found only with the sophisticated individual. To counteract this opinion a quotation may be given from a statement written by a veteran of limited ability and education who had just completed counseling, and was asked to write whatever reactions he had to the experience. He says:

"As for the consoleing I have had I can say this, It really makes a man strip his own mind bare, and when he does he knows then what he really is and what he can do. Or at least thinks he knows himself pretty well. As for myself, I know that my ideas were a little too big for what I really am, but now I realize one must try start out at his own level.

"Now after four visits, I have a much clearer picture of myself and my future. It makes me feel a little depressed and disappointed, but on the other hand, it has taken me out of the dark, the load seems a lot lighter now, that is I can see my way now, I know what I want to do, I know about what I can do, so now that I can see my goal, I will be able to work a whole lot easier, at my own level."

Although the expression is much simpler one notes again the same two elements—the acceptance

of self as it is, and the feeling of easiness, of lightened burden, which accompanies it.

As we examine many individual case records and case recordings, it appears to be possible to bring together the findings in regard to successful therapy by stating another hypothesis in regard to that portion of the perceptual field which we call the self. It would appear that *when all of the ways in which the individual perceives himself—all perceptions of the qualities, abilities, impulses, and attitudes of the person, and all perceptions of himself in relation to others—are accepted into the organized conscious concept of the self, then this achievement is accompanied by feelings of comfort and freedom from tension which are experienced as psychological adjustment.*

This hypothesis would seem to account for the observed fact that the comfortable perception of self which is achieved is sometimes more positive than before, sometimes more negative. When the individual permits all his perceptions of himself to be organized into one pattern, the picture is sometimes more flattering than he has held in the past, sometimes less flattering. It is always more comfortable.

It may be pointed out also that this tentative hypothesis supplies an operational type of definition, based on the client's internal frame of reference, for such hitherto vague terms as "adjustment," "integration," and "acceptance of self." They are defined in terms of perception, in a way which it should be possible to prove or disprove. When all of the organic perceptual experiences—the experiencing of attitudes, impulses, abilities and disabilities, the experiencing of others and of "reality"—when all of these perceptions are freely assimilated into an organized and consistent system, available to consciousness, then psychological adjustment or integration might be said to exist. The definition of adjustment is thus made an internal affair, rather than dependent upon an external "reality."

Something of what is meant by this acceptance and assimilation of perceptions about the self may be illustrated from the case of Miss Nam, a student. Like many other clients she gives evidence of having experienced attitudes and feelings which are defensively denied because they are not consistent with the concept or picture she holds of herself. The way in which they are first fully admitted into consciousness, and then organized into a unified

system may be shown by excerpts from the recorded interviews. She has spoken of the difficulty she has had in bringing herself to write papers for her university courses.

"I just thought of something else which perhaps hinders me, and that is that again it's two different feelings. When I have to sit down and do (a paper), though I have a lot of ideas, underneath I think I always have the feeling that I just can't do it... I have this feeling of being terrifically confident that I can do something, without being willing to put the work into it. At other times I'm practically afraid of what I have to do..."

Note that the conscious self has been organized as "having a lot of ideas," being "terrifically confident" but that "underneath," in other words not freely admitted into consciousness, has been the experience of feeling "I just can't do it." She continues:

"I'm trying to work through this funny relationship between this terrific confidence and then this almost fear of doing anything... and I think the kind of feeling that I can really do things is part of an illusion I have about myself of being, in my imagination, sure that it will be something good and very good and all that, but whenever I get down to the actual task of getting started, it's a terrible feeling of—well, incapacity, that I won't get it done either the way I want to do it, or even not being sure how I want to do it."

Again the picture of herself which is present in consciousness is that of a person who is "very good," but this picture is entirely out of line with the actual organic experience in the situation.

Later in the same interview she expresses very well the fact that her perceptions are not all organized into one consistent conscious self.

"I'm not sure about what kind of a person I am—well, I realize that all of these are a part of me, but I'm not quite sure of how to make all of these things fall in line."

In the next interview we have an excellent opportunity to observe the organization of both of these conflicting perceptions into one pattern, with the resultant sense of freedom from tension which has been described above.

"It's very funny, even as I sit here I realize that I have more confidence in myself, in the sense that when I used to approach new situations I would have two very funny things operating at the same time. I had a fantasy that I could do anything, which was a fantasy which covered over all these other feelings that I really couldn't do it, or couldn't do it as well as I wanted to, and it's

as if now those two things have merged together, and it is more real, that a situation isn't either testing myself or proving something to myself or anyone else. It's just in terms of doing it. And I think I have done away both with that fantasy and that fear. . . . So I think I can go ahead and approach things—well, just sensibly."

No longer is it necessary for this client to "cover over" her real experiences. Instead the picture of herself as very able, and the experienced feeling of complete inability, have now been brought together into one integrated pattern of self as a person with real, but imperfect abilities. Once the self is thus accepted the inner energies making for self-actualization are released and she attacks her life problems more efficiently.

Observing this type of material frequently in counseling experience would lead to a tentative hypothesis of maladjustment, which like the other hypothesis suggested, focuses on the perception of self. It might be proposed that the tensions called psychological maladjustment exist when the organized concept of self (conscious or available to conscious awareness) is not in accord with the perceptions actually experienced.

This discrepancy between the concept of self and the actual perceptions seems to be explicable only in terms of the fact that the self concept resists assimilating into itself any percept which is inconsistent with its present organization. The feeling that she may not have the ability to do a paper is inconsistent with Miss Nam's conscious picture of herself as a very able and confident person, and hence, though fleetingly perceived, is denied organization as a part of her self, until this comes about in therapy.

THE CONDITIONS OF CHANGE OF SELF PERCEPTION

If the way in which the self is perceived has as close and significant a relationship to behavior as has been suggested, then the manner in which this perception may be altered becomes a question of importance. If a reorganization of self-perceptions brings a change in behavior; if adjustment and maladjustment depend on the congruence between perceptions as experienced and the self as perceived, then the factors which permit a reorganization of the perception of self are significant.

Our observations of psychotherapeutic experience would seem to indicate that absence of any threat to

the self-concept is an important item in the problem. Normally the self resists incorporating into itself those experiences which are inconsistent with the functioning of self. But a point overlooked by Lecky and others is that when the self is free from any threat of attack or likelihood of attack, then it is possible for the self to consider these hitherto rejected perceptions, to make new differentiations, and to reintegrate the self in such a way as to include them.

An illustration from the case of Miss Vib may serve to clarify this point. In her statement written six weeks after the conclusion of counseling Miss Vib thus describes the way in which unacceptable percepts become incorporated into the self. She writes:

"In the earlier interviews I kept saying such things as, 'I am not acting like myself', 'I never acted this way before.' What I meant was that this withdrawn, untidy, and apathetic person was not myself. Then I began to realize that I was the same person, seriously withdrawn, etc. now, as I had been before. That did not happen until after I had talked out my self-rejection, shame, despair, and doubt, in the accepting situation of the interview. The counselor was not startled or shocked. I was telling him all these things about myself which did not fit into my picture of a graduate student, a teacher, a sound person. He responded with complete acceptance and warm interest without heavy emotional overtones. Here was a sane, intelligent person wholeheartedly accepting this behavior that seemed so shameful to me. I can remember an organic feeling of relaxation. I did not have to keep up the struggle to cover up and hide this shameful person."

Note how clearly one can see here the whole range of denied perceptions of self, and the fact that they could be considered as a part of self only in a social situation which involved no threat to the self, in which another person, the counselor, becomes almost an alternate self and looks with understanding and acceptance upon these same perceptions. She continues:

"Retrospectively, it seems to me that what I felt as 'warm acceptance without emotional overtones' was what I needed to work through my difficulties. . . . The counselor's impersonality with interest allowed me to talk out my feelings. The clarification in the interview situation presented the attitude to me as a 'ding an sich' which I could look at, manipulate, and put in place. In organizing my attitudes, I was beginning to organize me."

Here the nature of the exploration of experience, of seeing it as experience and not as a threat to self,

enables the client to reorganize her perceptions of self, which as she says was also "reorganizing me."

If we attempt to describe in more conventional psychological terms the nature of the process which culminates in an altered organization and integration of self in the process of therapy it might run as follows. The individual is continually endeavoring to meet his needs by reacting to the field of experience as he perceives it, and to do that more efficiently by differentiating elements of the field and reintegrating them into new patterns. Reorganization of the field may involve the reorganization of the self as well as of other parts of the field. The self, however, resists reorganization and change. In everyday life individual adjustment by means of reorganization of the field exclusive of the self is more common and is less threatening to the individual. Consequently, the individual's first mode of adjustment is the reorganization of that part of the field which does not include the self.

Client-centered therapy is different from other life situations inasmuch as the therapist tends to remove from the individual's immediate world all those aspects of the field which the individual can reorganize except the self. The therapist, by reacting to the client's feelings and attitudes rather than to the objects of his feelings and attitudes, assists the client in bringing from background into focus his own self, making it easier than ever before for the client to perceive and react to the self. By offering only understanding and no trace of evaluation, the therapist removes himself as an object of attitudes, becoming only an alternate expression of the client's self. The therapist by providing a consistent atmosphere of permissiveness and understanding removes whatever threat existed to prevent all perceptions of the self from emerging into figure. Hence in this situation all the ways in which the self has been experienced can be viewed openly, and organized into a complex unity.

It is then this complete absence of any factor which would attack the concept of self, and second, the assistance in focusing upon the perception of self, which seems to permit a more differentiated view of self and finally the reorganization of self.

RELATIONSHIP TO CURRENT PSYCHOLOGICAL THINKING

Up to this point, these remarks have been presented as clinical observations and tentative hy-

potheses, quite apart from any relationship to past or present thinking in the field of psychology. This has been intentional. It is felt that it is the function of the clinician to try to observe, with an open-minded attitude, the complexity of material which comes to him, to report his observations, and in the light of this to formulate hypotheses and problems which both the clinic and the laboratory may utilize as a basis for study and research.

Yet, though these are clinical observations and hypotheses, they have, as has doubtless been recognized, a relationship to some of the currents of theoretical and laboratory thinking in psychology. Some of the observations about the self bear a relationship to the thinking of G. H. Mead (7) about the "I" and the "me." The outcome of therapy might be described in Mead's terms as the increasing awareness of the "I," and the organization of the "me's" by the "I." The importance which has been given in this paper to the self as an organizer of experience and to some extent as an architect of self, bears a relationship to the thinking of Allport (1) and others concerning the increased place which we must give to the integrative function of the ego. In the stress which has been given to the present field of experience as the determinant of behavior, the relationship to Gestalt psychology, and to the work of Lewin (6) and his students is obvious. The theories of Angyal (2) find some parallel in our observations. His view that the self represents only a small part of the biological organism which has reached symbolic elaboration, and that it often attempts the direction of the organism on the basis of unreliable and insufficient information, seems to be particularly related to the observations we have made. Lecky's posthumous book (4), small in size but large in the significance of its contribution, has brought a new light on the way in which the self operates, and the principle of consistency by which new experience is included in or excluded from the self. Much of his thinking runs parallel to our observations. Snygg and Combs (11) have recently attempted a more radical and more complete emphasis upon the internal world of perception as the basis for all psychology, a statement which has helped to formulate a theory in which our observations fit.

It is not only from the realm of theory but also from the experimental laboratory that one finds

confirmation of the line of thinking which has been proposed. Tolman (12) has stressed the need of thinking as a rat if fruitful experimental work is to be done. The work of Snygg (10) indicates that rat behavior may be better predicted by inferring the rat's field of perception than by viewing him as an object. Krech (Krechovsky, 3) showed in a brilliant study some years ago that rat learning can only be understood if we realize that the rat is consistently acting upon one hypothesis after another. Leeper (5) has summarized the evidence from a number of experimental investigations, showing that animal behavior cannot be explained by simple S-R mechanisms, but only by recognizing that complex internal processes of perceptual organization intervene between the stimulus and the behavioral response. Thus there are parallel streams of clinical observation, theoretical thinking, and laboratory experiment, which all point up the fact that for an effective psychology we need a much more complete understanding of the private world of the individual, and need to learn ways of entering and studying that world from within.

IMPLICATIONS

It would be misleading however if I left you with the impression that the hypotheses I have formulated in this paper, or those springing from the parallel psychological studies I have mentioned, are simply extensions of the main stream of psychological thinking, additional bricks in the edifice of psychological thought. We have discovered with some surprise that our clinical observations, and the tentative hypotheses which seem to grow out of them, raise disturbing questions which appear to cast doubt on the very foundations of many of our psychological endeavors, particularly in the fields of clinical psychology and personality study. To clarify what is meant, I should like to restate in more logical order the formulations I have given, and to leave with you certain questions and problems which each one seems to raise.

If we take first the tentative proposition that the specific determinant of behavior is the perceptual field of the individual, would this not lead, if regarded as a working hypothesis, to a radically different approach in clinical psychology and personality research? It would seem to mean that instead of elaborate case histories full of information

about the person as an object, we would endeavor to develop ways of seeing his situation, his past, and himself, as these objects appear to him. We would try to see with him, rather than to evaluate him. It might mean the minimizing of the elaborate psychometric procedures by which we have endeavored to measure or value the individual from our own frame of reference. It might mean the minimizing or discarding of all the vast series of labels which we have painstakingly built up over the years. Paranoid, preschizophrenic, compulsive, constricted—terms such as these might become irrelevant because they are all based in thinking which takes an external frame of reference. They are not the ways in which the individual experiences himself. If we consistently studied each individual from the internal frame of reference of that individual, from within his own perceptual field, it seems probable that we should find generalizations which could be made, and principles which were operative, but we may be very sure that they would be of a different order from these externally based judgements *about* individuals.

Let us look at another of the suggested propositions. If we took seriously the hypothesis that integration and adjustment are internal conditions related to the degree of acceptance or nonacceptance of all perceptions, and the degree of organization of these perceptions into one consistent system, this would decidedly affect our clinical procedures. It would seem to imply the abandonment of the notion that adjustment is dependent upon the pleasantness or unpleasantness of the environment, and would demand concentration upon those processes which bring about self-integration within the person. It would mean a minimizing or an abandoning of those clinical procedures which utilize the alteration of environmental forces as a method of treatment. It would rely instead upon the fact that the person who is internally unified has the greatest likelihood of meeting environmental problems constructively, either as an individual or in cooperation with others.

If we take the remaining proposition that the self, under proper conditions, is capable of reorganizing, to some extent, its own perceptual field, and of thus altering behavior, this too seems to raise disturbing questions. Following the path of this hypothesis would appear to mean a shift in emphasis in psychology from focusing upon the

fixity of personality attributes and psychological abilities, to the alterability of these same characteristics. It would concentrate attention upon process rather than upon fixed status. Whereas psychology has, in personality study, been concerned primarily with the measurement of the fixed qualities of the individual, and with his past in order to explain his present, the hypothesis here suggested would seem to concern itself much more with the personal world of the present in order to understand the future, and in predicting that future would be concerned with the principles by which personality and behavior are altered, as well as the extent to which they remain fixed.

Thus we find that a clinical approach, client-centered therapy, has led us to try to adopt the client's perceptual field as the basis for genuine understanding. In trying to enter this internal world of perception, not by introspection, but by observation and direct inference, we find ourselves in a new vantage point for understanding personality dynamics, a vantage point which opens up some disturbing vistas. We find that behavior seems to be better understood as a reaction to this reality-as-perceived. We discover that the way in which the person sees himself, and the perceptions he dares not take as belonging to himself, seem to have an important relationship to the inner peace which constitutes adjustment. We discover within the person, under certain conditions, a capacity for the

restructuring and the reorganization of self, and consequently the reorganization of behavior, which has profound social implications. We see these observations, and the theoretical formulations which they inspire, as a fruitful new approach for study and research in various fields of psychology.

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PSYCHOLOGICAL BONERS

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THE statements listed here, selected from first year psychology examination papers, are all entirely genuine—genuine even as regards punctuation and spelling. Many of the items simply show a very much garbled interpretation or knowledge of the facts and, as such, they are interesting testimony concerning the phenomenon of inattentiveness and nonchalance that is characteristic of some students. Others display nothing in common with what was originally said in the lecture or discussion; these represent the more creative efforts of some individuals, whose mental processes are sometimes quite baffling even to a sympathetic instructor. Occasionally these statements are pathetically wide of the mark; at other times, although uproariously funny, they may contain some germ of the original idea.

All such statements are from the writer's pre-war teaching experience in various educational institutions in New York State. Given the increased maturity of many present-day university students, it is conceivable that their examination papers will not be as productive of such outrageous statements. Thus, somewhat in the nature of a vintage piece, the following small collection is presented.

One often hears instructors bemoaning the hours spent in the reading of examination papers. This same reading would not be as monotonous if the papers contained a few such choice bits and word salads as given below.

Puberty

Puberty is a condition of adolescence when the individual, a female, has sex knowledge but as yet no sex experience.

Puberty is the state in which a mother is in just before giving birth to a child.

A person is said to be at puberty when he commences to walk and talk, etc.

The period during when embryo is in fetus.

Reliability

What all good tests should have—people too. Reliability is one of the main functions of any

experiment, problem or question, or answer. If there is no reliability there is no perfect grade. Also, reliability is an adjective for the character of a person. If in recommending a person to another, and it is said that that person is reliable, it is understood that the person will do the best within his power. Therefore the same is true of an experiment in psychology. If a teacher reads an experiment of a reliable author the class will gain by it. If not, then it is lost time.

Standard Deviation

The standard deviation of a certain thing is that it goes in the normal way. That it functions in the normal way. For example if the thyroid gland secretes its hormone in the average way it would be called a standard deviation. If too slow it is called a hypo deviation of the thyroid.

Hybrids versus Monsters

Hybrids and monsters are caused by sexual intercourse between: for example a donkey and a dog. The offspring does not possess the organs of reproduction.

Hybrids and monsters are individuals whose form and mentality is peculiar to the genus to which they belong. They are usually born into families whose father or mother is a victim of syphilis or other venerable diseases, etc.

Sex Differences

The sexes differ in the biological functions which they perform. The female is built to perform reproduction. The male is built to perform more difficult operations than the female. He has great muscular ability. Mens endurance to physical hardships is greater. In the process of maturation when boys reach puberty their voices change and they grow a beard. A girl does not.

The male is the stronger of the two and is built more in the shape of a square while the female is built more in a curved shape. The female has a high voice, the male has a deep voice. The female bears the young, while the male merely makes

possible the bearing of young. Males are better at feats of strength.

Habit and Learning

Almost everyone has a habit...

... There are other habits which are probably learned.

Habit is a thing that a person becomes acquainted with when he uses it enough.

Habits often lessen work and make it easier. Habit formation is bad, but I doubt if there are many individuals who do not have some habits.

It has also been found that a pupil can become so conditioned that without any effort he will go directly to his next class... Some psychologists would say this is a habit. (It may be.)

Means of Reducing Rate of Forgetting

Before beginning to learn one should be moderately warm...

Also watch out for "blows on the head"—amnesia.

Overlearning: Overlearning is when you have ten stanzas to learn, and you learn fifteen.

Part learning: You learn the first stanza and then you learn the second stanza and by the time you know the second stanza you forget the first stanza.

Hysteria versus Neurasthenia

Hysteria is just a state of getting upset over some happening, while neurasthenia is a disease that takes a week or more to get over. We may be working too hard in school because of some difficulty, and become sick with neurasthenia. If we rest for about two weeks; and then come back to school, our work will probably pick up to better than it was before.

Reciprocal Inhibition

Reciprocal inhibition is making life hard. We go about our career in an underhanded way, and in the end we lose.

Reciprocal inhibition is that instinct when you learn something and it comes back to you.

Reciprocal inhibition is the practice of staying out of work and getting welfare. They can get money for doing nothing so they either won't get jobs, or else they (the welfare-list working people) don't keep them.

Instinct

Present day medical science is doing much to explode the theory of instinct in its description of what a child does in its pregnancy.

Gestalt

The Gestalt school found the theory of transfiguration.

Intelligence

There was a time in France when intelligence was very low and Binet was interested to find out why.

On the Army tests, Army officers scored highest and next came educated persons.

There are three main types of mental deficiency: idiot, imbecile and mormon.

Personalities in Psychology

Sherrington: originated the idea of the scratch reflex in dogs.

Kuo: a Japanese experimenter, and he did an awful lot of experimenting on animals... (Lashley): he was an experimenter also...

Experimental Extinction

This is the goal of psychology.

Dr. Robert A. Brotemarkle has been kind enough to send in some items from *Psyiology*, a book of psychological boners which the Department of Psychology of the University of Pennsylvania has collected for years. These items are printed below.

Armchair psychology—a seat in which would-be aviators are placed in order to test their sense of equilibrium.

— is the kind of psychology we did in 1-C. We all sat in arm chairs and took tests and then scored them and then studied individual differences.

— is the type of psychology taught at the University of Pennsylvania. Certain facts and fundamentals are talked about in the lectures, then we go to our rooms and sit down to think over what was said.

The PreRolandic fissure has to do with motion. The motion is upside down and vice versa.

In the back of the eyeball we find the rosin cones of the retina.

From a quiz on the brain: Cerebral pinochles.

Without kinaesthesia the human body would be practically useless to the brain.

The pituitary body is also called the hypothesis.

Extrication is only possible with animals because humans would *probably object*.

The siller muscles of the eye is responsible for a pupil's relaxation.

From a report on the Muscle-Nerve Experiment: Our records were successful (no doubt partly because we used Dr. N.'s own piece of muscle).

This same principle (use of reaction time in detecting criminals) can be used on a person suspected of suicide and the result would be the same.

The Vernier chronoscope so called because it was first used by Jules Vernier.

This having been done we decapitated the leg of the frog.

The angular gyrus is a priceless possession.

Psychology, although a comparatively young science has gone through many adolescent periods in its development.

A nerve impulse always travels along very smoothly; this is even made a criterion of health in an individual. If the impulse rattles along a nerve in an individual, there is something radically wrong with him.

James Lange gave us a new theory on emotions.

How quickly a person is able to learn certain material depends upon how the person learns the

material—either fast or slow, and the length of time the material can be retained.

In the card sorting experiment in the beginning I used my hand, my arm, practically my whole body, especially my head.

In the Mare and Foal test, the puzzle is how the colt gets to its mother thru the puzzle maze.

An IQ of 141 almost always means a Precautious child.

Memory span is the ability to grasp an after image.

From an Opposites test: Reserved—General admission.

Memory span is the theory that if something comes into your mind and goes away, and cannot be brought back, it must be written down.

Clinic—a place where people may receive attention free of charge for a small amount.

In 1916 Binet made a revision of his test. Stanford brought them to this country and thus we have the Stanford Binet.

Competency is an aggregate of many congenital abilities.

Memory span is the ability to grasp an indiscreet amount of ideas in a given moment of attention.

Among the Meninges is the paranoid.

The mean variation is used to tell whether a table has been properly conducted.

Guss Stalt has a theory . . .

VISITOR TO AMERICA

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IT WAS the University of Princeton which brought me to America, and the occasion was one of give and take. Princeton gave me a degree and took some lectures, or at least that is how it might appear on a straight record of fact. Actually Princeton and the people of Princeton were giving me so much all the time that I am vastly in their debt in more ways than I can record, but not least for my memories of its beauty and their friendliness.

After the first ten days I took a train to Providence and Brown University; then to Boston and Harvard, with a visit to Tufts; and then to Washington, Maryland and Baltimore. The National Research Council and the Army Air Service made it possible for me to get to Wright Field and to make the long journey to Randolph Field where I had a chance to see a little of life in Texas and to enjoy weather like an English June, at its best. While I was at Wright Field I had met fellow psychologists from Ohio State, Indiana, and Oxford, and was able to see something of the work at Antioch. Following San Antonio I went to Nashville and then on to Duke and North Carolina Universities, and so back to a meeting of the group of Experimental Psychologists at Princeton. After this I had a day or two at Swarthmore, paid a second swift visit to Philadelphia and went to New Haven and Yale, putting in a morning at Wesleyan University. My final week end I spent with an old psychological friend and his family at Scarsdale, and returned to Princeton now more glorious than ever with its bright spring blossoms. The end was not quite yet. The Eastern Psychological Association was meeting at Atlantic City and somewhat to my own surprise I made a proper tripper's visit there, with that for an excuse. The famous resort was perhaps hardly at its best. It was a shivery sort of day and the place looked a bit pale and melancholy like somebody not quite dressed for a show and putting on finery in a shocking draught. The next day my first trip to America came to an end.

How to write about my experiences I don't really

know. I should like to follow up this catalogue of place names by another list of all the old friends whom I met again and all the new friends whom I made, and to try—though it could not be with great success—to tell a little of what they did for me. But it would take too long and even then there would be many I should miss. I must be content to say that I had heard much of American kindness to visitors, but that which I met, everywhere I went, was far greater than I had any right to expect, and far beyond anything I could have imagined. To everybody who in the course of these ten busy weeks, gave me generously of their time, ideas and companionship, I should like to say "Thank you."

If I repay all this by putting down as frankly as I may what were some of the chief impressions which American psychology, as I saw it, made upon me, it must be with certain clear reservations in mind. I am acutely aware that although I saw a lot, I saw nothing for long. Also I have had exceedingly little time to study or ponder over anything. My reflexions are bound to be superficial and may be wrong. A longer view may result in changes of mind, but at least I will try to be as honest as I can for the time being.

Everywhere I went I was impressed by tremendous activity and frequently by beautiful technique. The instrumentation is in general far beyond anything that English psychologists can anywhere at present achieve, even where the skill and the will are available. I hope it will not appear ungracious if I say that I am less sure about the ideas. It seemed to me that sometimes brilliant instrumentation was mistaken for well directed experiment. Speaking very generally, I think that problems are still being developed along the old, conventional lines, and that the methods still remain little different from those of years which to some of us seem to belong to the far past. I fancy that in England in particular we have had more of a rough jolt out of the old ruts, and are searching, though perhaps with little success, for

methods which will retain that accuracy of control which scientific research demands, but will at the same time bring us into more immediate contact with behaviour beyond the laboratory.

There are perhaps three directions in which the differences are most striking, at least to the rather hurried visitor from England.

First there is social psychology. We are all in this field now, but whereas in England the effort seems to be to try to find out what social problems are amenable to an experimental approach, and so to bring the laboratory and the field into closer relationship, I got an impression that a good many social psychologists in America have become unhappily suspicious of the laboratory and are in a way in revolt. In so far as this has led to a much more thorough exploration of possible methods of exact sampling of public opinion I think this has put America a long way ahead of England, and is a definite and fruitful advance. But where, as in my experience often has happened, it means that the two interests fly apart it seems to me bad for both. For example, one of the things that seemed to me to stand out was that American psychologists are at the moment very highly motivated to talk about motivation. Almost wherever I went any results of experiment or observation which appeared difficult to account for were rather gaily set down to motivation. But one never knew what was really meant by this. Very often it turned out that nothing was meant except a reference to a tolerably controllable animal drive, like hunger. There seemed little serious effort to find satisfactory methods for a really scientific study of the many other forms of incentive. This is a search which must surely be made and I think it is little likely to be successful unless the laboratory and social psychologists join forces.

Secondly there is the case of the "clinical psychologist." Here I confess that I am "hot and bothered." If I am to comment on the American situation as I saw it, I must bring in the clinical psychologist, but I am quite sure that my opinions about the whole movement are hazy and muddled. I discussed it everywhere I went and it appeared to me that the views and aims involved are many and varied. In England on the whole one of the strongest moves of the last few years has been an attempt to put the whole clinical study of man on a more definite ex-

perimental foundation. In general medicine this is seen in the encouragement and advance of chemotherapy, in experimental nutritional studies, and in many developments of biophysics. In mental pathology it is seen in an increasing demand that the prospective practitioner should have a more thorough training in the psychological laboratory, and that the laboratory for its part should be more in earnest in developing technique and measures adequate to cope with all possible forms of normal behaviour and not alone with those that are set up within its own boundaries, and are exploited at least in part because they happen to be the ones that yield the largest number of quick results. The rapid development of industrial medicine in close alliance with laboratory training in psychology is a part of the same movement.

It seemed necessary to make a brief statement of this background, because it may have distorted my understanding of the American outlook in regard to clinical psychology. As I do understand it, it is an attempt at a rather large scale rapid production of many people who can give tests, of one kind and another, and perhaps even take over some of the therapeutic practices of psychological medicine. It seems to me likely to lay a very great burden upon university teaching and administration in psychology for the next few years. I would guess that it can be successful only if the universities are rigid about their standards, and if they insist that no more students shall be unloaded upon them than their accommodation and staff can deal with adequately.

Even then there is one matter that I frankly do not understand. The scheme seems to accept the view that for a long time to come we are to have communities with a very high incidence of mental illness. If this should not be the case what is to become of the clinical psychologist? If it is, I think a good many people will be inclined to ask what has become of psychology. In fact I often wondered whether the immense amount of energy that is going into this scheme may not be drawing on effort that might at least as profitably be directed in other ways.

Thirdly there is what is called Applied Psychology. Perhaps I saw less of this than I ought to have done, but here, once again, I got the impression that America and England may perhaps be moving in opposite directions. In the one there may be a tendency to sharper division and in the other to closer liaison.

While the far greater numbers involved in America make separation more likely I cannot believe that they make it either necessary or really desirable.

But enough of this. In another few months perhaps I shall see both sides more clearly. It is more to the point to record that everywhere I went I found boundless enthusiasm and activity, and a firm belief in the certainty of rapid developments of psychological study and research. If in other matters America and Britain succeed in understanding one another as well as American and British Psychologists are

likely to be able to do, the prospect for the future of the world will not, after all, be as dismal as some folks make it out to be.

I want to end this brief record on a more personal note. To Professor H. S. Langfeld more than to anybody else, I owe this American visit. To him and to Mrs. Langfeld, and through them to the University of Princeton and many of its members and friends I owe, in one way or another, the fact that it was, from beginning to end, one of the happiest experiences that I have ever had.

(Continued from page 375)

11. *Psychological Research on Flexible Gunnery Training*, R. N. Hobbs
12. *Psychological Research on Radar Observer Training*, Stuart W. Cook
13. *Psychological Research on Flight Engineer Training*, John T. Dailey
14. *Psychological Research on Problems of Redistribution, Frederic Wickert*
15. *The Psychological Program in AAF Convalescent Hospitals*, Sidney W. Bijou
16. *Psychological Research on Operational Training in the Continental Air Forces*, Meredith P.

- Crawford, Richard T. Sollenberger, Lewis B. Ward, Clarence W. Brown, Edwin E. Ghiselli
17. *Psychological Research in the Theaters of War*, William M. Lepley
18. *Records, Analysis and Test Procedures*, Walter L. Deemer
19. *Psychological Research on Equipment Design*, Paul M. Fitts

These reports have been published by the Government Printing Office and are available from the Superintendent of Documents, Washington 25, D.C.

RESEARCH REPORTS OF THE AAF AVIATION PSYCHOLOGY PROGRAM

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THE Aviation Psychology Program of the Army Air Forces has prepared a series of 19 reports on the research done during the war. The general objective of this series of reports is to present the complete story of procedures developed, predictive tests and evaluative techniques produced, and facts and relationships established. It is intended that through these reports a comprehensive statement of the findings and results will be made available for planning future research and operating procedures in the Air Forces.

In order that these reports accomplish this objective as effectively as possible, general plans for the preparation of the reports were developed in a series of three conferences attended by most of those individuals having editorial responsibility for each of the various reports. The first discussion of the reports took place at a conference in San Francisco early in August 1944. A memorandum sent out in October 1944 requested that preliminary outlines be submitted. At a conference at Lincoln Army Air Field in May 1945 tentative target dates were set for the completion of the various reports. On the 3rd and 4th of August 1945 a special conference was held at Randolph Field for the purpose of developing final plans for the reports. At this conference each of the editors presented the detailed outline for his report. General matters of policy and various problems concerning the tentative style manual prepared by Hq. AAF Training Command were discussed and agreed upon. The revised manual was reproduced and distributed as the "Style Book for Preparing Reports on the Aviation Psychology Program" by the Psychological Section, Hq. AAF Training Command.

The editors were requested to submit copies of their manuscripts to Hq. Army Air Forces, Hq. AAF Training Command, and to other interested units. The Psychological Branch in Hq. Army Air Forces examined all manuscripts with regard to

considerations of policy, technical procedures, conflicts, and general contents. The officer in charge of psychological publications in Hq. AAF Training Command examined the manuscripts primarily for style, organization, and expression. Other units examined specific portions of the manuscript primarily with regard to overlap and special knowledge concerning discussions of work for which these other units had been primarily responsible.

Although numerous suggestions for changes were made, the final responsibility for the content of the reports was in all cases that of the editor of the specific report. In only a few instances was it possible to discuss suggestions in person and in very few instances were revisions seen prior to the preparation of the mimeographed preliminary drafts.

The titles of the reports and the names of the officers in the Aviation Psychology Program primarily responsible for supervising their preparation and editing are listed below:

1. *The Aviation Psychology Program in the Army Air Forces*, John C. Flanagan
2. *The Classification Program*, Philip H. DuBois
3. *Research Problems and Techniques*, Robert L. Thorndike
4. *Apparatus Tests*, Arthur W. Melton
5. *Printed Classification Tests, Parts I and II*, J. P. Guilford, assisted by John I. Lacey
6. *The AAF Qualifying Examination*, Frederick B. Davis
7. *Motion Picture Testing and Research*, James J. Gibson
8. *Psychological Research on Pilot Training*, Neal E. Miller
9. *Psychological Research on Bombardier Training*, Edward H. Kemp and Albert P. Johnson
10. *Psychological Research on Navigator Training*, Launor F. Carter

(Continued on page 374)

A BIBLIOGRAPHY ON CAREERS IN PSYCHOLOGY

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PSYCHOLOGY has long appealed to students and to laymen. Today this interest is even greater than before, and, occupationally speaking, the future of psychology is very promising. An increasing number of people are seeking the services of psychologists. Public and special schools, various types of institutions, hospitals, clinics, welfare agencies, business organizations, industries, the armed services, government departments and agencies are demanding more psychologists each year. More college and university students are studying psychology today than ever before, and many of them are asking: What must one do to become a psychologist? Psychologists are themselves becoming alert to the occupational needs and possibilities of their science. Journal articles dealing with opportunities, training requirements, and certification of psychologists have come as a flood during and since World War II. At its last annual meeting, the American Psychological Association decided to publish a brochure presenting the occupational opportunities in the various fields of psychology.

Since at the present time there is no bibliography that summarizes adequately the occupational aspects of the various fields of psychology, it is my purpose to present here a selected bibliography of recent literature on the topic.

The references included were selected from among several hundred that are occupational in nature or that are occupationally significant. Practically all of the references included were published since 1940. Only 21 of the 157 references were published before that date, and some of these were included for historical reasons. More than three-fourths of the titles appeared during the last five years, and nearly one-fifth of them during 1946. Psychology teachers and counselors may be interested in knowing that half of the journal articles included here are found in the *Journal of Consulting Psychology*. Volumes 6 through 10 of that journal are of particular value to the student. The *Psychological*

Bulletin and the *Journal of Applied Psychology* have from time to time included occupationally significant articles, but not in any large number. The editorial policy of *THE AMERICAN PSYCHOLOGIST* stresses the occupational and professional aspects of psychology. Eleven articles published in this journal during 1946 are included here.

PUBLICATIONS OF GENERAL INTEREST

Most of the publications dealing with the general occupational and professional opportunities in psychology are brief. The National Roster of Scientific and Specialized Personnel published two leaflets (4, 5) that give general information. A very adequate discussion of six fields of applied psychology is found in Berdie (18). An earlier report on psychology as a career was written by Hildreth (63). Two committee reports prepared by Boring and others (20, 21) present recommendations for future development and proposals for training. These are of less interest to the student than to the professional psychologist.

Shartle (132) presents descriptions of 28 psychological occupations giving the duties, the qualifications required, and the approximate salary and prospects for advancement. These descriptions are classifications of positions and are intended as a guide for those who want to know the general duties in occupational areas in which psychologists are employed. Dudycha (46) gives a brief description of the overall picture in 1946.

Several articles give information concerning employment trends in psychology. The oldest of these by Kitson (78) presents data on the increase in the number of psychologists up to 1933. Finch and Odoroff (52, 53) indicate the trends in the employment of applied psychologists between 1916 and 1940. Marquis (92) tells how 4,553 psychologists were employed at the beginning of 1944 and the changes since 1941. In a second article, Marquis (93) indicates the employment trends from 1931 to

1945 and also gives us his prediction as to post-war opportunities.

Women are playing an increasingly important role in American psychology. Fernberger (50) presented the opportunities open to women in college and university teaching. Murphy (103) introduced a series of six articles in the *Journal of Consulting Psychology* that discusses the war activities of women psychologists. Bryan and Boring (24) presented data on the ratio of women to men in psychology. The same authors (25) published data on the employment of women psychologists in 1940 and 1944, giving their degrees and salaries received. In a recent article Bryan and Boring discuss factors affecting the careers of women psychologists (26). Armstrong (11) tells about the activities and development of the National Council of Women Psychologists.

THE TEACHING OF PSYCHOLOGY

Although more psychologists are employed as college and university teachers than in any other phase of psychology, little has been published concerning their work, status, and opportunities for advancement. Prior to the war, Fernberger (50) discussed the status of women in teaching, and Berdie (18) touched on it briefly.

THE PSYCHOLOGICAL COUNSELOR

The psychological counselor may be employed in any one of several ways. He may counsel children, young adults, married people, or the aged. He may be employed by a school system, a public or a private institution, a guidance center, a hospital, or a prison. Each type of employment has advantages that appeal to particular psychologists.

The School Psychologist. Two excellent general accounts that tell about the duties, training, and employment opportunities of school psychologists were prepared by Goldberg (58) and by Cornell (32). Symonds' (138) article on the school psychologist in 1942 introduced a series of nine articles in a single issue of the *Journal of Consulting Psychology*. Briefer accounts may also be found in Berdie (18). The work of the school psychologist in public education is discussed by Baker (12), Cornell (33), Fenton (49), and Krugman (80). His work in the private school is presented by Thayer (143). Rosebrook (116) discusses the possibilities

for employment in smaller communities on a regional basis. Zehrer (157) stresses the mental hygiene aspect of the school psychologist's work. The certification of school psychologists is discussed by Cornell (31) and Cutts (38).

Child Guidance. Very few specific references are available in this field. Carter (30) presents an excellent discussion of the work of the Wichita Guidance Center; Witmer (153) gives an extended account on psychiatric clinics for children.

The Marriage and Family Counselor. There is both an increased need for and interest in this type of counseling. The functions of the marriage counselor are discussed by Cuber (37) and by Bennett (16). Other references are Benz (17), and McClure (98).

Counseling the Aged. This type of counseling is still in its infancy. The need for it is discussed by Rues (119). A handbook prepared for old-age counselors was written by Martin (97). Lawton (83, 84) discusses this field of psychological work.

Guidance and Counseling. Hoslett (66) in 1944 stressed the need for better industrial and student counseling. An excellent job description is found in an article by Shartle (131) and information concerning the characteristics, training requirements, and certification of counselors is given by Jones (70). The counselor's day is described by Laubenstein (82); the work of school counselors is given by Wright (156), and Retlig (113) discusses the counseling of women factory workers. The role of the vocational counselor is discussed by Goldman (59), and his role in a prison system is given by Martin (96). The training of vocational counselors is discussed in a bulletin published by the War Manpower Commission (150). General information concerning the training of counselors is found in an article by Super (137) and in an anonymous (1) article.

Rehabilitation Work. Several recent publications give a general view of rehabilitation work. Among these are an anonymous (6) article, one by Beard (14) and others by Dabelstein (39), and Elliott (47). The role of the psychologist in rehabilitation is discussed by DiMichael (43) and by Marquis and others (94). A list of government agencies engaged in vocational rehabilitation is found in Marquis (91). Counseling and personality testing is discussed by Lipkin (87). Gillman and Ramsey (57)

stress the rehabilitation of personnel in the Army Air Forces. The qualifications for rehabilitation counselors are listed by Finch (51).

The Prison Psychologist. Two recent articles should be read by those interested in prison work. Corsini (34) delineates the work of the prison psychologist, the special training required, and the probable future open to him. Martin (96) gives a picture of vocational guidance in a prison system.

CLINICAL PSYCHOLOGY

Clinical Psychology. An excellent general discussion of clinical psychology was published several years ago by Louttit (89). A general discussion of this field may be found in Berdie (18). The clinical psychologist's work with alcoholics is discussed by Trowbridge (145), his work in a psychiatric clinic by Pierce (109), in a state hospital by Shakow (127), in the Veterans Administration by Miller (100), and in the general hospitals of the army by Layman (86).

A number of articles have dealt with the training of clinical psychologists. A brief article on trends in training was prepared by Shakow (129). Several articles deal with the undergraduate and graduate courses required and recommended. Among these are articles by Sears (121), Rosenzweig, Root, and Pearson (117), Moore and others (101), Shakow (128), and Greene (60). The most recently published are listed first. Additional articles dealing with training are those by Symonds (139), Rogers (114), Doll (44), and Poffenberger (110). The certification of clinical psychologists is discussed by Selling (124) and by Shaffer and others (125).

The Institutional Psychologist. The work of the clinical psychologist in various types of hospitals was discussed in a series of articles published in 1944 and introduced by Wells (152). Work in a psychiatric unit for children was presented by Kinder (74). Rapaport (111) discussed the work in a private mental hospital; Schott (120) in a general hospital; Seidenfeld (123) in a tuberculosis hospital; Stevens (136) in a station hospital; Tallman (141) in a neurological hospital; Wechsler (151) in a psychiatric hospital, and Wittman (154) in a state hospital for the mentally ill. A general account may be found in Berdie (18).

Psychometrist. The psychometrist is to the clinical psychologist what the laboratory technician

is to the physician. Berdie (18) discusses this work briefly. Barten (13) discusses the psychometric methods used in a mental hygiene clinic in a psychopathic hospital.

Public Health. Derryberry (42) presents a very adequate discussion of psychological work in public health.

PSYCHOLOGICAL WORK AMONG EXCEPTIONAL CHILDREN

Delinquents. A rather extended committee report on the psychological work in institutions for delinquent boys and girls was prepared by Giardini and others (56). Comments on this report were made by Rogers, Symonds and Shakow (115). Martens (95) presents data on training opportunities in this field.

Feeble-minded and Gifted. Laycock (85) discusses the mental health qualifications required of special class teachers, and Burnside (28) discusses the psychological guidance of gifted children. Training opportunities are discussed by Martens (95).

Blind and Deaf Children. Haven (61) discusses the training of teachers of the blind, and Lowenfeld (90) their status and salaries. Myklebust (104) outlines the functions of a psychologist in a residential school for the deaf. Vocational guidance in schools for the deaf is discussed by Crammate (35, 36). A bulletin by Martens (95) presents training opportunities.

Speech Correction. The constitution and by-laws of the American Speech Correction Association, presented in an anonymous (3) article, give the reader some information concerning this field of work. The membership regulations and training requirements of the ASCA are presented by Palmer (107). Schools that specialize in this type of training are listed by Martens (95).

Remedial Reading. Hildreth (64) discusses this type of work as a specialty for psychologists.

BUSINESS AND INDUSTRY

Personnel. An excellent monograph by Darley and Berdie (40) discusses at some length the various features of personnel work. An account of the development of personnel research in industry is found in Kirkpatrick (77). Information concerning public personnel work may be found in Stead (135). Discussions of employee counseling are found in

Newman (105), Retlig (113), Tead (142), and in an anonymous government bulletin (10). Articles dealing with the training of personnel workers were published by Jones (69) and by Kitson (79).

Business and Industry. Uhrbrock (147, 148, 149) has written a series of articles on the opportunities in and training for industrial psychology. The reader will find the third one of these particularly instructive. A recent article by Taft (140) describes the psychologist's work in industry. What psychologists can do in business is told by Starch (134). Berdie (18) also discusses the work. Advertising as an occupation is very adequately presented by Davis (41).

Public Opinion and Market Research. Trends in marketing research were discussed in an article by Burtt (29). This article is an introduction to seven additional articles that deal with various problems of market research. The nature of the work, training for, and other features of the measurement of public opinion are given by Katz (71). Attitude research in the Department of Agriculture is discussed by Skott (133).

Radio and Plant Broadcasting. The duties of the child psychologist in radio broadcasting are presented by Jersild (68). Plant broadcasting is discussed by Kerr (72, 73) and by Kirkpatrick (76).

PSYCHOLOGISTS IN GOVERNMENT SERVICE

Civilian Psychologists. A very informative article on psychological work in civil service was prepared by O'Rourke (106). This article discusses examinations, grades, and salaries paid. Britt (22) lists the offices, divisions and departments that employ psychologists. Marquis (91) discusses the work of government agencies engaged in vocational rehabilitation, and Tolman and Lickert (144) present the services of psychologists in the field of agriculture.

Military Psychologists. A very adequate description of the distribution of military psychologists during the war, and the nature and extent of their training, is given by Marquis (92). Work in one phase of the army is presented by Lipkin (87) and in an anonymous article (9). Some of the work in the navy is presented by Pennington (108) and in an anonymous article (8). Service in the air forces is discussed in an anonymous article (7) and by Gillman and Ramsey (57). During the war years a

large number of articles dealing with psychological work in the various branches of the service were published in the *Psychological Bulletin* and in the *Journal of Consulting Psychology*. The interested reader can locate these easily.

PSYCHOLOGICAL WORK WITH LIMITED OPPORTUNITIES

The applications of psychology to traffic engineering are presented by Forbes (54). The work of the psychologist in the school of music is discussed by Seashore (122), in the library school by Bryan (23), and in the museum by Lark-Horovitz and Keith (81). Although the employment opportunities in these fields of psychological work are still limited, they do hold promise for future development.

INTERNSHIP TRAINING

Under the foregoing headings specific attention was called to publications that stress the training requirements for the various fields of psychology. In recent years increasing stress has been placed on the importance of on-the-job training. This is particularly true in clinical psychology. The following group of recently published articles dealing with internships and externships in psychology should be read by the reader interested in clinical psychology. Doll (45) discusses the internship program at the Vineland Training School for feeble-minded children. Bixler, Bordin, and Deabler (19) present the opportunities in college counseling at the University of Minnesota. Elonen, Onken and Slight (48) discuss psychological externships in medical school clinics. Rapaport and Schafer (112) give the training opportunities at the Menninger Clinic. Graduate internships at the Western State Psychiatric Institute and Clinic are discussed by Rosenzweig (118), and the Worcester internship program is presented by Shakow (130). Beck (15) discusses the psychological externships at the Michael Reese Hospital in Chicago, and Wittman (155) presents the state-wide opportunities in clinical psychology in Illinois. Internship opportunities in New York State are discussed by Kinder (75), and in New York City by Tulchin (146). Morrow (102) published a very adequate history of internship training which includes a bibliography

of 99 titles. A valuable general account of internship training is found in an anonymous article (2). A somewhat older publication on this subject that has value is one by Shakow (126).

THE CERTIFICATION OF PSYCHOLOGISTS

In the past several years notable strides have been taken in the direction of the certification of psychologists. It is particularly significant that at the 1946 meeting of the American Psychological Association the committee report prepared by Jacobsen and others (67) proposing an American Board of Examiners in Professional Psychology was adopted. This action sets up a separate board that will certify psychologists in clinical and industrial psychology, in guidance and in such other professional fields of work as shall be added in the future. Other recent committee reports well worth noting are Long (88), and Shaffer and others (125). The certification of school psychologists is discussed by Cornell (31), by Cutts (38), and by Horrocks (65). Certification laws applying to psychologists have been passed in a number of states. Buck and others (27) discuss the certification of clinical psychologists in Virginia; Fowerbaugh (55) presents the legal status of psychologists in Ohio, and Heiser (62) discusses the certification of psychologists in Connecticut. Both Jones (70) and MacKay (99) discuss the certification of counselors. Selling (124) devotes some space to certification.

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A LABORATORY PERIOD IN THE FIRST COURSE IN PSYCHOLOGY

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THE inclusion of a laboratory period in the first course in psychology is certainly not novel, for it has been the practice of a number of universities during the last two or three decades. On the other hand, the vast majority of institutions do not have such a laboratory period, perhaps because they fear that they would not be able to run a satisfactory program for large numbers of students, or because they think that it would not be worth the trouble. Since the war and the success achieved by the extensive laboratory work in the A.S.T.P. psychology program, a number of departments are reconsidering the question. Hence it seems worthwhile to pass along our experience.

When the Brown curriculum was revised in 1945, a one-semester course in General Psychology was included in the Distribution Requirements and will be taken by most A.B. candidates. Since the course was listed under the science group, and normally followed a similar course in Biology, we were requested to include a laboratory period. Our department believed that we should either have a laboratory that compares favorably with those in the other sciences or none at all. We anticipated approximately 400 students per semester. It seemed probable that we could handle 20 pairs, or 40 students, per period in a well-equipped laboratory. Since this would require 10 periods per week to handle all the students, the length of the period was set at 2 hours, permitting 2 periods per afternoon. It was also obvious that, if the scheme was to work at all, it would be necessary to have all students working on the same experiment during the same week. This called for 20 duplicate sets of apparatus (plus spares), with adequate storage facilities so that the units could be handled with a minimum of assembling and adjusting. It was

estimated that the apparatus could be purchased and/or assembled for \$5,000. Another \$3,000 was set aside for furniture and apparatus cabinets. The cost of alteration and wiring of the laboratory room was not included in the estimates. In spite of increased costs we have stayed well within the estimates, and the laboratory is working smoothly, even though we started with 475 students instead of the expected 400. A laboratory fee of \$3.50 per student covers costs of laboratory directions, supplies, replacements, and leaves enough surplus to amortize the original cost in about 10 years.

The Laboratory and Apparatus Rooms. A large lecture room, 33 ft. x 51 ft. with high ceilings, is equipped with 21 booths, each approximately 6 ft. x 6 ft., placed around the walls. This leaves sufficient space in the center of the room for 50 tablet arm chairs and a lecture desk. The booths are constructed of Masonite partitions, 8 ft. high, with a 2½ ft. opening for a doorway. Each booth contains a table, 2 chairs, an adjustable stool, an electric wall clock, and a built-in hat shelf and coat hanger. It also has an overhead light, a Duplex wall receptacle (A.C.) and 2 polarized receptacles. The polarized receptacles are arranged on 2 separate circuits that originate in male plugs in the Apparatus Room, making it possible to feed them with A.C. or D.C. of any desired voltage, either continuously, or in pulses for timing apparatus. All windows are equipped with shades and light traps.

The central portion of the room is furnished with ample blackboards. Several are detachable ones, ruled with white paint so that they can be used for tabulating and plotting data. Additional boards are obtained by painting some of the Masonite panels with blackboard paint. Other partitions carry bulletin boards. The front wall carries a large clock and 2 loudspeakers.

The Apparatus Room connects with the Laboratory Room, and is equipped with 23 running feet of built-in cabinets of the type used in modern

¹ The author served as "Executive Officer"; since practically every other member of the Staff of the Department of Psychology participated in the project, it is impractical to list them individually.

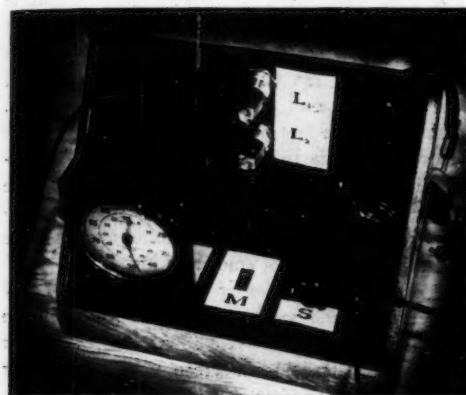
kitchens. In cross-section this shelving consists of a base unit for apparatus, a working surface, and an upper unit for storing laboratory directions, paper, and supplies. An additional cabinet is provided for single pieces of bulky apparatus such as the record player. The booth light and power receptacles are controlled from this room. One corner is fitted out with a desk and chairs, for use in conferences.

Experiments and Apparatus. The 13 experiments were planned to accompany and illustrate the lectures, which follow the order of Munn's *Psychology*, except that statistics and testing come at the start

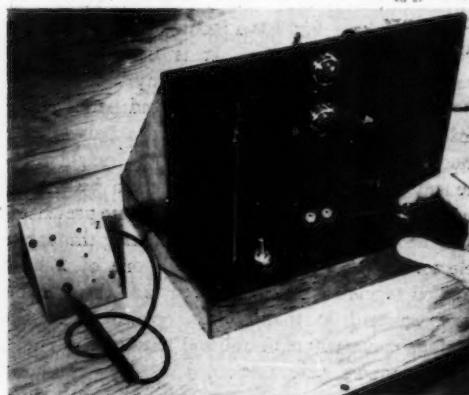
methods used in general psychology. To illustrate these aims, we will give a brief description of each of the weekly experiments.

1. *The Bennett Mechanical Comprehension Test.* This test was chosen to avoid the individual problems that would be aroused by an Intelligence Test. Form AA is administered, class results are collected, and the students are shown how to plot distributions and to compute simple measures of central tendency and dispersion.

2. *Form BB of the same test* is given, and the students compare scores with those obtained the



A



B

FIG. 1. THE REACTION TIMER

A. Viewed from E's side. The earphones, for auditory stimulus, are hung over the top right hand corner. L₁ and L₂ are lights, corresponding to points 1 and 2 on the selector switch (S). M, the master or stimulus switch, is a silent mercury toggle switch.

B. Viewed from S's side. The right hand toggle switch has just been thrown to the "off" position by S, in a simple reaction. For a discrimination reaction both hands and both toggle switches would be used. The steadiness plate and stylus, shown on the left, can be plugged into the pin jacks just below the lights, the plate making a 45° angle with both base and panel.

of the course. The laboratory directions are mimeographed at present. They are quite detailed, and contain spaces for data, tabulations, and answers to questions. These spaces are filled in during the laboratory period, so that the student can turn in his report as he leaves. It takes about 2 hours per week to grade 40 of these reports on a rough 4 point scale.

Many different factors entered into the choice of specific experiments, but throughout the planning we made an effort to build up a program which would introduce the students to the major research

previous week. They are then introduced to correlation, used to compute the reliability of the test. An automatic calculator is on order, and should facilitate computations in this and the next experiment.

3. *Steadiness, Strength of Grip, and Rate of Manipulation.* Students work in pairs in the booths. Steadiness is tested by a stainless steel plate with variable sized holes, using a radio type test lead as a stylus. The unit plugs into the timer (see Fig. 1, and Exp. 4) and reads total duration of contacts on a .01 secs. clock. Each student also

administers the Minnesota Placing and Turning Test to his partner, and the assistant circulates around the booths with a Smedley Hand Dynamometer. All students then assemble in the center of the room, collect class data, and compute a correlation coefficient between two of the measures. They then return to the booths, and plot scatter diagrams for the remaining combinations. This experiment accompanies lectures on the nervous system, and serves to tie statistics in with behavior.

4. *Reaction Time.* Working in pairs, the students obtain 100 reaction times on each other, including simple auditory and visual discriminations, in balanced order. Fig. 1 is a picture of the apparatus used in this experiment. It is built around a Standard Electric Time Company Model S-1 Timer, mounted on a small base and panel. The auditory stimulus is an AC hum in a pair of earphones, to avoid confusion with neighboring students. The visual stimuli are given by a blue and an amber jewel dial light. Stimuli are presented by a silent G. E. mercury switch, working through a selector switch. S. responds with one of 2 bat-handled toggle switches, mounted near the edge of the baseboard so that he can operate them by pinching movement of thumb and forefinger. These reaction timers were assembled in our own shop, but even so they cost about \$80.00 each. Although they represent the largest single item in our budget, they are worth it, for they are quite impressive in appearance and operation, and are used in weeks 3, 4, and 8.

5. *Learning the Elevated Finger Maze.* This is a traditional experiment, utilizing an 11 unit multiple T maze. Here again the apparatus is attractive in appearance, consisting of stainless steel wire paths on both sides of rosin-bonded mahogany plywood. The laboratory directions include a tally sheet for recording time and entrances into culs.

6. *Learning Nonsense Syllables.* Each student learns a 10 syllable list, teaches his partner one, and then relearns his own. A tally sheet permits a record of anticipatory responses, and the first 10 students to finish tabulate their scores by serial position, so that the whole class can see the relative difficulty of the beginning, middle, and end of the list. Individual memory drums² are used, driven

² Schlosberg, H., An inexpensive memory drum, *J. exper. Psychol.*, 1941, 29, 161-163.

by a pulse every 2 seconds, which is fed into the polarized receptacles in each booth.

7. *Thinking.* One E. observes his S. working on a modified Hanfmann-Kasanin test. Four of the blocks are mounted on a small board, and given "family names" (nonsense syllables). S. must sort the remaining blocks, to get together "all members of the same family." It is thus a study of concept formation. This experiment works nicely. E. and S. then change places, and work on a problem involving "set." The one used this year was not satisfactory, and will be replaced by another.

8. *Free Association.* This experiment seemed to be the only practical one to illustrate motivation and emotion. Partner A gives the first 50 words of the Kent-Rosanoff list to B, recording response word and time. B then administers the last 50 words, followed by the first 50, to A, and then A gives the second 50 words to B. Association times are obtained from the reaction timer, with E. actuating one key coincident with stimulus and response. Unusual response words and long times are studied as possible indications of emotional areas.

9. *Span of Perception of Reading.* Two series of dots, letters, and words, prepared on filmstrips, are presented to the class. A 300 watt S.V.E. projector is used with a translucent screen, so that the operator will not block the view of the screen. The exposure is controlled by a simple disc shutter, weighted so that it will spin through 340 degrees, and then latch itself. The operator moves it over dead center before releasing it for the next exposure. An open sector crosses in front of the lens at the point of most rapid movement. This shutter seems to be much more reliable than more delicate and complicated commercial ones.

After the students have determined their spans for materials of different degrees of complexity, they break up into the usual pairs, and examine eye movements during reading, using the peep hole technique. Some find this task to be very difficult. An eye movement camera is available for demonstration, but there is not sufficient time to take and develop records for each student.

10. *Color Mixing.* The students work in pairs, using motor driven color mixers, to verify the laws of color mixture. Formulae, in terms of percentages of 3 primaries, are worked out for all mixtures, as well as for matches with samples.

11. *Depth Perception.* Students work in pairs, using the Keystone "Televiwer," which is a prism stereoscope equipped with stand and illuminator. Several cards, obtained from the same company, are very useful. Thus the Stereopsis (DB-6D) slide, containing several lines of figures, each with one figure displaced by a different amount, serves to illustrate the principle of disparity, and permits the student to determine his own threshold. Another pair of cards allows the student to compare disparate and non-disparate pairs of pictures. The students also prepare simple stereograms, and even construct a crude stereoscopic range finder, cutting the reticle and airplane out of the mimeographed blank.

12. *Audition.* This is a class experiment and demonstration using a 15 watt public address system, oscillator, and record player. The instructor demonstrates and explains pitch and timbre, and then gives the corresponding tests from the Seashore series. The results from one test (pitch) are worked up in considerable detail, first in terms of local norms, and then using the psychophysical method of constant stimuli.

13. *Personality.* The Kuder Preference Record is administered and scored. The results are analyzed in terms of norms.

The laboratory has now been in operation for one semester. It has worked out very well, in spite of all the difficulties coincident with an expanded enrollment and a shortage of supplies.³ Of course the program makes fairly large demands on the time

of the Staff. Each of the 12 sections takes $2\frac{1}{2}$ hours for an instructor and his assistant, and the latter spends another 2 hours in grading and clerical work. One instructor and an assistant must each devote another 5 hours per week to general supervision of the program, setting up the apparatus, etc. A laboratory period is unquestionably more time-consuming than any other of the usual methods of instruction in the beginning course. Nevertheless all sciences have learned by experience that only laboratory work can give the student that first-hand contact with the subject matter which is indispensable to a concrete understanding of science and of the scientific method. We believe that this sort of understanding is especially important in psychology; far too often the undergraduate emerges from a course of lectures with the belief that psychology is nothing but a lot of common-sense knowledge disguised in big words. If our students—not to mention our colleagues in other departments—are to understand a large segment of modern psychology, they must learn that we collect facts in a laboratory, and that we depend on these facts rather than on hunches, guesses, and intuitions! Hence we believe that a laboratory period, required for all students who take the beginning or general course in psychology, can be of great importance in building up the status of psychology as a science. But if the program is to be effective, it must be done properly. Carefully prepared directions, well-finished and impressive apparatus, and decent quarters are essential if the "psych lab" period is to compare favorably with those in other departments. We believe that these facilities are well within the reach of many colleges in these days of large enrollment and changing curricula.

³Student reaction to the laboratory period is generally favorable. Dr. G. A. Kimble is making an analysis of the results of unsigned questionnaires, and will publish his findings.

Across the Secretary's Desk

1948 Yearbook QUESTIONNAIRE

In July questionnaires were mailed to all APA members to secure information to print in the 1948 *Yearbook*. As this is written, 2827 questionnaires have been returned. That leaves 2263 not yet returned. Some of these, probably, have simply been neglected. Some, because of faulty mailing or out-of-date addresses, may not have reached the person addressed. If you have not yet returned yours, do so. If you did not get one, write the APA office simply asking for a yearbook questionnaire. We will send you one immediately.

The 1948 *Yearbook* will contain biographical information similar to that contained in *American Men of Science*; that is, it will for everyone whose questionnaire is returned in time. For those whose questionnaires do not get here in time or are not returned at all, we can print only the name and mailing address.

ARE YOU GOING TO THE TWELFTH INTERNATIONAL CONGRESS?

American psychologists planning to attend the Twelfth International Congress of Psychology in Edinburgh next July 23-29 should begin to make travel plans now. There is still plenty of time for airplane reservations, but many of the possible steamship accommodations are already reserved for next June and July.

The trip by air takes less than 24 hours from New York. American Airlines' fare from New York to Glasgow is \$550.70 round trip. Trans World Airlines' fare from New York to Shannon, Ireland, is \$547.40 round trip. British Overseas Aircraft Company's fare from New York to Prestwick (near Glasgow) is \$361.80 round trip. Your travel agent or one of the airlines will help you make reservations.

Those who prefer to travel by sea must not delay making reservations. The less expensive accommodations are already sold out for some ships. The United States Line has not yet announced next summer's schedule, but advance reservations are being accepted.

The Cunard Line has several ships sailing from New York to Southampton. The trip requires from 5 to 10 days. Minimum round trip fares are \$730 first class, \$450 cabin class, and \$330 tourist.

Passage on the Empress of Canada (Canadian Pacific Lines) from Montreal to Liverpool can still be secured. Minimum first-class round-trip fare is \$552. Minimum tourist-class round-trip fare is \$349.60. The trip requires 7 days.

If a number of psychologists from this side of the Atlantic wish to make the trip together, that may still be possible to arrange. If you are interested in sailing with a group of other psychologists, please write me, letting me know your preferences regarding steamship line, class of accommodations, and preferred sailing date. I will let you know what can be arranged.

PERSONNEL PLACEMENT: NOTICE TO ALL REGISTRANTS

If you are registered with the placement service of the APA, please keep us informed of every change of address and every change of position you make. This information is necessary if prospective employers are to locate you. We would also be glad to know of changes in your salary. That helps determine which jobs might interest you.

Industrial and clinical positions may become vacant at any time of the year, so registrants interested in these positions must keep us constantly informed of their wishes and their addresses if they want to be considered for new positions.

At this time of year we assume that psychologists in academic positions wish to remain in them until next summer. Unless we have instructions to the contrary, we tend to eliminate them from consideration for positions which must be filled immediately. However, requests for midyear appointments, and even for next summer or fall appointments, will start appearing soon. Regardless of the type of position you prefer, send us promptly any change of address, status, or plans.—DAEL WOLFLE

Psychological Notes and News

GEORGE S. SNODDY died in Santa Monica, California on June 29, 1947 at the age of 65 years.

JAMES A. WALLACE REEVES, president of Seton Hill College, died on March 7, 1947.

WINIFRED KITTREDGE died in New York City at the age of 57 years.

STELLA HANLIN SCHULTZ died in Princeton, New Jersey on July 22, 1947.

Seven and a half million dollars has been appropriated for the mental health activities of the U. S. Public Health Service during the fiscal year 1948. The mental health program, authorized by Congress in 1946, included a threefold program of research on mental illness, development of local mental health facilities, and training of mental health personnel in addition to mental health activities within the Public Health Service. Approximately \$400,000 will be awarded for research grants and fellowships, \$1,050,000 for training grants and stipends, and \$3,000,000 for grants-in-aid to States.

Grants have been awarded to universities, hospitals, and clinics for training in the fields of psychiatry, clinical psychology, psychiatric social work, and psychiatric nursing. The grants were recommended by the National Advisory Mental Health Council and approved by the Surgeon General. Grants for the improvement of graduate training in clinical psychology were made to University of California (Berkeley), Duke University, University of Illinois, Illinois Neuropsychiatric Institute (Chicago), State University of Iowa, University of Michigan, University of Minnesota, Northwestern University, Ohio State University, University of Pennsylvania, Princeton University, University of Rochester, Stanford University, Western Reserve University, Western State Psychiatric Institute and Clinic (Pittsburgh), and Worcester State Hospital. The Illinois Neuropsychiatric Institute, Western State Psychiatric Institute, and Worcester State Hospital will offer internship training.

A total of 129 applications for research grants in

the field of mental illness were received, of which 25 have been recommended for support. Research grants have been made to the following members of the APA: W. N. KELLOGG, ROGER G. BARKER, ANNE ROE, THOMAS M. FRENCH, MARGARET BRENNAN, H. S. LIDDELL, WAYNE DENNIS, LEOPOLD BEL-LAK, ZYGMUNT A. PIOTROWSKI, L. K. FRANK, and S. J. BECK.

The following have been appointed to the Advisory Panel of Consultants in Psychology, after being nominated by the APA: JOHN G. DARLEY; WILLIAM A. HUNT; CARLYLE JACOBSEN; LAURANCE F. SHAFFER; and DAEL WOLFLE. This Panel held its first meeting August 9 and 10.

The U. S. Public Health Service made a special grant to the APA to study training facilities and to develop a recommended graduate program in clinical psychology. President CARL ROGERS, after consultation with the Division of Clinical and Abnormal Psychology, appointed a Committee on Training in Clinical Psychology to conduct these studies. Members are: DAVID SHAKOW, Chairman, E. R. HILGARD, E. LOWELL KELLY, BERTHA M. LUCKEY, R. NEVITT SANFORD, and LAURANCE F. SHAFFER.

CARL ROGERS, as President of the APA, appointed a Committee on Ethical Standards in Psychology consisting of E. C. TOLMAN, Chairman, HELEN SARGENT, NICHOLAS M. HOBBS, EDWIN E. GHISELLI, JOHN C. FLANAGAN, and LLOYD N. YEPSEN. The purpose of the Committee is to develop an acceptable set of ethical standards for psychological practice.

C. M. LOUTTIT has been appointed professor of psychology and dean of the undergraduate division of the University of Illinois at Galesburg, Illinois.

JOHN E. ANDERSON, director of the Institute of Child Welfare of the University of Minnesota, will be on sabbatical leave for the year 1947-1948. In his absence DALE B. HARRIS will be acting director of the Institute.

FLORENCE L. GOODENOUGH has resigned her professorship of psychology at the Institute of Child Welfare of the University of Minnesota. Her resig-

nation was due to ill health and the desire to devote more time to research and writing.

ALICE I. BRYAN has been granted a year's leave of absence from the School of Library Service, Columbia University, to serve on the staff of the *Public Library Inquiry*. Dr. Bryan will direct the Personnel Project, one of five studies to be carried on by the *Inquiry*. These studies, conducted under the chairmanship of Dr. ROBERT LEIGH by the Social Science Research Council, have been made possible by a grant of \$175,000 from the Carnegie Corporation of New York to the Council, made at the request of the American Library Association.

HORACIO J. A. RIMOLDI, Buenos Aires, and MARIANO YELA-GRANIZO, University of Madrid, are completing a year's study and research at the Psychometric Laboratory at the University of Chicago.

CAROL F. LUNDIE and MELANEY E. WHITE, both from the University of Witwatersrand, Johannesburg, South Africa, have recently arrived to study there.

HAROLD Voss, formerly of Proctor and Gamble Company, Cincinnati, is now Assistant Chief Psychologist at the Special Devices Center, Office of Naval Research, at Sands Point, New York.

PAUL HORST, manager of the Personnel Research Department of the Proctor and Gamble Company, has accepted an appointment as professor of psychology at the University of Washington, beginning the fall of 1947.

PAUL CAMPBELL YOUNG will be visiting professor of psychology at Southern Methodist University, Dallas, for 1947-48. Dr. Young, who is also Assistant Branch Chief Clinical Psychologist for the VA in the Dallas Branch Office, will have charge of the development and administration of a training program in clinical psychology. He is on leave of absence from Louisiana State University.

GEORGE S. SPEER, director of the Institute for Psychological Services of Illinois Institute of Tech-

nology, Chicago, was elected vice-president of the National Vocational Guidance Association.

After leaving the services in September 1946, CHARLES A. KNEHR returned to Hunter College as an instructor. He is also psychologist in the Cornell University Medical College.

WESLEY O. ALVEN is now assistant professor of psychology at the University of Akron.

S. HOWARD BARTLEY has resigned as professor of research in the Visual Sciences, Dartmouth Eye Institute, to accept an appointment as professor of psychology at Michigan State College as of July 1, 1947.

Dr. Bartley has recently been granted a patent for his device for measuring returning sensitivity to skin areas whose nerve supply has been cut.

LLOYD A. JEFFRESS has been appointed Hixon Professor of Psychobiology at the California Institute of Technology for the year 1947-48. He is on leave of absence from the psychology department of the University of Texas.

MERRELL E. THOMPSON has resigned from the Kent State University to accept an associate professorship at the New Mexico State College, State College, New Mexico.

MARGUERITE G. VANDEVER, formerly instructor in the department of psychology at Occidental College, Los Angeles, has been appointed director of vocational guidance and placement there.

DANIEL STARCH, GEORGE D. STODDARD, and GEORGE GALLUP were awarded Certificates of Achievement at the commencement celebrating the 100th anniversary of the founding of the University of Iowa. Certificates were given to 99 outstanding alumni of the 35,000 living graduates of the University of Iowa.

BERNARD SLESS has been appointed Staff Personnel Consultant of the Personnel Institute, New York. Prior to his appointment he was Regional Chief of Occupational Analysis and Industrial Services, U.S.E.S.

ALBERT E. CONWAY is now assistant professor of psychology at Lafayette College, Easton, Pennsylvania.

DANIEL KATZ has accepted an appointment as professor in the department of psychology and Program Director in the Survey Research Center at the University of Michigan. Dr. Katz was formerly chairman of the department of psychology at Brooklyn College.

The following people will be added to the staff of the graduate department of the City College of New York for the academic year 1947-48: RÉNÉE SPITZ, of the New York Psychoanalytic Institute; LOIS B. MURPHY of Sarah Lawrence College; and DR. BELA MITTELMANN.

RAYMOND H. FLETCHER, formerly Director of Instruction at Highland Park Schools, has joined the Texas staff and ERNEST H. WARD, formerly professor of psychology, Wittenberg College, has joined the Los Angeles staff of Rohrer, Hibler, and Replogle.

T. E. CHRISTENSEN, who was assistant professor of education and counselor at the Guidance Bureau, University of Kansas, is now assistant professor of vocational guidance at General College, Boston University.

CARTER V. GOOD, University of Cincinnati professor since 1930 and acting dean for the past three years, will succeed L. A. PECHSTEIN as dean of the Teachers College. Dr. Pechstein, who is retiring because of ill health, was dean for 25 years. He has been given the title of dean emeritus.

HARRIETT K. BECK has been appointed Psychologist for the Flint State Child Guidance Clinic.

N. L. GAGE has been appointed assistant director of the Division of Educational References, Purdue University, with the rank of assistant professor.

MOLLY HARROWER has been appointed Psychological Consultant to the United States Department of State, and Vice-Chairman of the Executive Committee of the Board of Governors of the International Committee for Mental Health.

The Chicago Psychological Club has elected MARTIN L. REYMENT, president, GORDON V. ANDERSON, vice-president, J. ANTHONY HUMPHREYS, secretary, and CHARLOTTE H. ALTMAN, treasurer, for the year 1948.

RICHARD H. HENNEMAN, formerly of the Aviation Psychology Research Unit of the Strategic Air Command, has accepted a position as associate professor at the University of Virginia.

The following psychologists were among the 24 social scientists who were awarded grants-in-aid for the completion of research projects by the Grants-in-Aid Committee of the Social Science Research Council: RAYMOND B. CATTELL, for testing a new theoretical foundation and practical technique for social attitude measurement; SAUL ROSENZWEIG, for construction of a children's form of the Rosenzweig Picture-Frustration Study; HEINZ WERNER, for experimental studies of semantic and communicative aspects of language behavior.

G. GORHAM LANE has resigned his position as assistant professor of psychology, and assistant director of Research in Aviation Psychology at the Ohio State University. He was visiting assistant professor at George Washington University in the summer session, and will be assistant professor of psychology at the University of Delaware this fall.

G. M. GILBERT has accepted appointments as visiting associate professor of psychology at Princeton University and Chief Psychologist at Lyons Veterans Hospital, New Jersey.

Nuremberg Diary, the record of his study of the Nazi war criminals was selected as the nonfiction book-of-the-month for June by the Nonfiction Book Club.

M. DUANE BOWN has accepted a position as assistant professor of psychology, beginning in the fall semester, at the University of Hawaii.

JAMES EGAN has been appointed assistant professor of psychology at the University of Wisconsin.

C. A. DICKINSON has resigned as head of the department of psychology of the University of Maine,

a position which he has held for 20 years. He will continue to teach as professor of psychology. A. DOUGLAS GIANVILLE will be acting head of the department beginning September 1, 1947.

MORGAN UPTON has been appointed professor and chairman of the department of psychology at Rutgers University. He had been associated with the Murray Corporation of Detroit as an industrial psychologist.

EDWARD R. KNIGHT has been elevated to the position of Headmaster of the Oxford Academy, New Jersey. At the age of 29 he is the youngest Headmaster in the United States.

HENRY L. SISK has accepted a position as industrial psychologist on the staff of Stevenson, Jordan, and Harrison, Inc., Chicago.

JOSEF ZATKIS, FRANCIS J. DEIGNAN, ARTHUR GLADSTONE, and DOROTHY Y. LEE have been added to the staff of the Department of Psychological Services of the Southbury Training School. They will work in clinical psychology under the direction of MILTON COTZIN, director of Psychological Services.

ROY R. ULLMAN has been appointed professor of psychology at Wittenberg College, Springfield, Ohio.

J. MCV. HUNT led the section on technical methods at the workshop on research in social work held June 16-20 at the School of Applied Sciences of Western Reserve University.

LEONARD S. KOGAN of the department of psychology of the University of Rochester has been appointed assistant director of the Institute of Welfare Research in the Community Service Society of New York.

DANIEL H. HARRIS, formerly Vocational Advisor in the Brooklyn Regional Office, VA, has been appointed Chief, NP Section, Special Rehabilitation Division, Washington, D. C. Dr. Harris will plan and carry out the improvement of the vocational rehabilitation training programs of veterans with neuro-psychiatric disabilities.

Farragut College has just acquired a contract with the VA to run a Class "A" Guidance Center. ANDREW N. DOW, Jr., has been added to the staff as Assistant Director of Guidance and Personnel.

BERNARD RIESS, DANIEL LEHRMAN, and IRWIN KATZ were appointed as research fellows to work in the New York Zoological Park this summer on problems of social and maternal behavior. The Zoological Society's research program, both at the Zoological Park and at the Jackson Hole Wildlife Park in Wyoming, is under the general direction of C. R. CARPENTER.

WALLACE H. WULFECK addressed the American Public Health Association at its annual meeting relating to the Merit System Unit on public health recruitment problems. RICHARD WM. WALLEN spoke on "The Adaptation of Modern Advertising Methods to the Recruitment of Personnel."

The Department of Psychology of Swarthmore College announces the following appointments to its staff: S. E. ASCH, as professor of psychology; WILLIAM C. H. PRENTICE, as assistant professor of psychology; and MARIAN HUBBELL MOWATT as lecturer in psychology and education.

Graduate work leading to the MA is offered at Swarthmore in the fields of perception, learning, personality, and social psychology. Applicants are invited to write directly to the chairman of the department, Dr. Richard S. Crutchfield.

The Second Annual Coordinating Conference was held on April 10-11, at the Western State Psychiatric Institute and Clinic, Pittsburgh. The Conference, intended to coordinate the concepts and services of psychiatry, psychiatric nursing, clinical psychology, and psychiatric social service, had as its theme *The Place of Psychiatry in General Medicine*.

At the meeting in Dallas, April 5, the Psychology Section, Southwestern Social Science Association, elected MERL E. BONNEY, president and EVELYN M. CARRINGTON, secretary. The retiring president, L. B. HOISINGTON, named a committee with OSCAR ULLRICH as chairman to study the problem of affiliation with the American Psychological Association.

The New School for Social Research, New York, will offer this fall the first course exclusively dedicated to the Thematic Apperception Test given by any university for credit. The course will be limited to a small number of properly qualified psychologists and will be taught by LEOPOLD BELLAK.

At its fifteenth annual meeting, the Chicago Society for Personality Study elected MAURICE H. KROUT president for 1947-48. MARGARET W. GERARD was elected vice-president, and MICHAEL T. KOENIG secretary-treasurer. This is the first time that a psychologist has been elected to the presidency of the Society, whose members are anthropologists, criminologists, psychoanalysts, psychologists, psychiatrists, sociologists, and representatives of related disciplines.

The psychology department of Farragut College, Farragut, Idaho, would like copies of psychological texts and journals no longer needed by members of the Association. If contributors will send in the titles and issues they have available, the department will be glad to pay all shipping costs.

The Section of Psychology, recently established in the Association of Scientific Workers, England, met for the first time at Bedford College, London, on January 18. WINIFRED RAPHAEL was the presiding officer. The speakers were: I. M. DUNSDON, H. J. EYSENCK, PEARL KING, T. H. PEAR, WINIFRED RAPHAEL, J. D. SUTHERLAND, and STEPHEN TAYLOR. Until this meeting, psychologists had met within the Association of Scientific Workers as part of the Medical Section.

The Board of Examiners of Psychologists in Connecticut completed its second year of operation on June 30, 1947, and has submitted a report to the Governor. Fifty-one psychologists were certified during the first fiscal year and twenty-seven during the past year. It is believed that a majority of psychologists who can meet the requirements of the law has now been certified. There has been general satisfaction, both within and outside the profession, with the way the law has served its function. WALTER R. MILES, Chairman of the Board, has accepted reappointment for a 3-year term. Others continuing are MARION A. BILLS and STEPHEN HABBE.

The newly formed State Psychological Association of Washington State met in Seattle on May 16 and elected the following officers: E. S. BORDIN, president; WM. M. ADAMS, vice-president; F. NOWELL JONES, secretary-treasurer, and H. M. HOUTCHENS and RALPH GUNDLACH, members at large of the executive committee.

A Conference on Motor Skills Research was held at the Special Devices Center, Office of Naval Research, Sands Point, New York, on June 26-27. Sessions were held on current and planned research in motor skills, psycho-motor research in relation to military problems, and on topics relating to psycho-motor research.

Section I, Psychology, of the AAAS, will hold sessions December 29-30, at Chicago. Members wishing to present papers should send abstracts to the secretary, Dr. Harold E. Burtt, Department of Psychology, Ohio State University, Columbus 10, Ohio. Abstracts should be in triplicate, not over 200 words, and must be received by September 22 if they are to be considered. If slides, charts, or blackboard are necessary, a statement to that effect should be made at the end of the abstract. Time required should be specified—maximum 15 minutes. In the case of slides specify whether they are 2" x 2" or 3 $\frac{1}{4}$ " x 4". Moving pictures will not be shown in conjunction with a paper.

The July AMERICAN PSYCHOLOGIST announced a Postgraduate Institute of Applied Psychology, conducted by the Illinois Association for Applied Psychology in cooperation with Northwestern University. It was planned for August 15-16. This Institute has been postponed.

The Directors and Stockholders of The Psychological Corporation have approved the issuance of 4,000 additional shares of stock of the Corporation to be offered for sale to psychologists.

The Stockholders at a special meeting on December 6, 1946 decided to replace each of the original 1,000 shares of stock by four new shares and to offer for sale 4,000 additional shares at a price of \$25 per share. The principal need for new capital is the expansion and development of the Corporation's activities, particularly in the field of tests, where

sizable investments in research and inventory are essential to sound publications and sales.

The first report of the President's Commission on Higher Education, tentatively titled, *Teachers for Higher Education*, is now available by writing the President's Commission on Higher Education, Washington 25, D. C. This report gives a picture of college teacher salaries, tenure, retirement, and recruitment.

The Life Insurance Agency Management Association, Hartford, Connecticut, has openings for two psychologists interested in problems of selection and personnel evaluation, or market studies. The PhD or its equivalent in experience is required. The salary will be from \$4000 to \$5000. For further information write S. Rains Wallace, Jr., Life Insurance Agency Management Association, 115 Broad Street, Hartford 5, Connecticut.

The Bureau of Personnel, State Capitol, Madison, Wisconsin, has an opening for a Psychologist III. The necessary qualifications are three years experience in clinical psychology with supervised field experience. The salary will be \$250 per month with \$30 bonus. For further information write the above address.

Beginning October 1, the McLean Hospital will have openings for interns in clinical psychology for periods from six months to a year. A BA in psychology is required and some experience in testing is desirable. Part time work in graduate schools in Boston is possible. Applications should be directed to Dr. W. Franklin Wood, Director, McLean Hospital, Waverly 79, Massachusetts.

The Lapeer State Home and Training School, an institution for mental defectives, invites applications for the position of Psychologist III, Head of Department. Salary is \$3600-4200. The minimum requirements are an MA in clinical psychology with four years' experience. Institutional residence is optional. Applications should be sent to Dr. E. E. Cooper, Medical Superintendent, Drawer A, Lapeer, Michigan.

The position of psychologist is open at the Youngs-

town Receiving Hospital. It requires a graduate degree from a recognized school of psychology with experience in the psychiatric and mental hygiene fields. The salary range is \$3000-4000. Correspondence should be directed to Dr. E. E. Elder, Superintendent, Youngstown Receiving Hospital, Youngstown, Ohio.

The Guidance Center in New Orleans announces fellowship in clinical psychology designed to provide experience in the administration and interpretation of psychological tests. Appointment is for one year with a stipend of \$2000. Applicants should have an MA in psychology and be familiar with tests for children of all ages. Address all inquiries to Dr. Milton E. Kirkpatrick, Medical Director, The Guidance Center, 1737 Prytania Street, New Orleans 11, Louisiana.

The Lincoln State School and Colony has vacancies for the positions of Psychologist I and II. The salary range for Psychologist I is \$190-245 per month. Applicants should have an MA or equivalent. Some clinical experience is desirable. The salary range for Psychologist II is \$230-290. Applicants should have an MA and at least one year of competent clinical experience. For both positions full maintenance is provided at a cost of \$32 per month. Inquiries should be addressed to Dr. William W. Fox, Superintendent, Lincoln State School and Colony, Lincoln, Illinois.

The Mooseheart Laboratory for Child Research has an opening for a physiological psychologist with special training in electroencephalography. The salary is \$3300 a year. Further information may be obtained by writing Dr. Martin L. Reyment at the above address.

The California Department of Corrections announces an examination, open only to residents of California, for the position of Vocational Counselor in the Prison Guidance Center. Minimum requirements are an AB and three years of experience. Salaries range from \$376 to \$458 a month. Closing date for receipt of applications is September 25. For further information write Department of Corrections, 417-429 State Office Building No. 1, Sacramento 14, California.

CHILD PSYCHOLOGY

by the late John J. B. Morgan

588 pp., \$3.25

Now in its third edition, this standard text integrates the latest experimental material and gives added emphasis to developmental sequences. Suitable for use in elementary psychology and education courses, the subject matter deals primarily with the physical, mental, emotional, and organizational aspects of the growing personality from prenatal history to adolescence. Valuable comprehensive charts and illustrations implement the text.

PSYCHOLOGY OF ADOLESCENCE

660 pp., \$3.50

by Louella Cole

This revised edition presents a comprehensive picture of adolescent years stressing physical, social, moral, and intellectual development. Factual data, actual experiences, and practical tests are all discussed with sympathetic understanding and insight. Used with Professor Morgan's *Child Psychology*, this text makes a natural combination for a year's course in child and adolescent psychology.

PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE

by Cole and Morgan

416 pp., \$3.00

The purpose of this book is to combine the salient features of *Child Psychology* by the late Professor Morgan and *Psychology of Adolescence* by Dr. Cole. Intended primarily for use in teachers' colleges and colleges that offer a combined course in child and adolescent psychology, its main theme is to acquaint the student with important trends of development and major concepts underlying them.



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